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# BLUE JAY

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March 2004





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Common names are used for birds, mammals and butterflies. Bird names follow the Checklist of North American Birds by the American Ornithologists' Union (7<sup>th</sup> edition, 1998); mammal names, The Mammals of Canada by Banfield ; butterfly names, The Butterflies of Canada by Layberry *et al.* For other groups, both scientific and common names are included.

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**COVERS: Front** - Hoary Redpoll (top) and Common Redpoll (bottom)  
Photographs by R.E. Gehlert

**Back** - Yellow Warbler nest parasitized by a Brown-headed Cowbird, June 1991, Delta Marsh, Manitoba. The nest contains one cowbird egg and four warbler eggs.

Photograph by Spencer Sealy

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# 62<sup>ND</sup> ANNUAL SASKATCHEWAN CHRISTMAS BIRD COUNT-2003.

ALAN R. SMITH, 115 Perimeter Road, Saskatoon SK S7N 0X4 and ROBERT E. JOHANSON, 406 125 5<sup>th</sup> Avenue N, Saskatoon SK S7K 6A5

## The Counts

This winter Christmas Bird Counts were conducted in 97 localities. This brings the total number of counts conducted since the first count in 1913 to 3,150 in over 300 localities across the province.

Although the average number of years each of these counts had been held is 10, 200 localities have held counts for fewer than 6 years while 50 localities have had counts for 20 years or more. The record for the most counts at one locality is 58 at Saskatoon, with Kenaston and Regina tied for second with 55.

As both Saskatoon and Regina have missed years in the late 1940s or early 1950s, the nod for most consecutive years of bird counts goes to Kenaston with 55 consecutive years. Lawrence Beckie began the count under the name of Bladworth. A few years later the count name was changed to that of nearby Kenaston, but not a single count has been missed since he began in 1949. Congratulations to Lawrence Beckie for this remarkable achievement!

On the other end of the scale, four new counts were established this year. They are Calder, Esterhazy-Hazelcliffe, Nisbet Forest Northwest, and Spruce Home Southwest. A count at Punnichy was conducted for the first time since 1976. Hats off to these new observers; let's hope these counts are also continued for 55 years straight!

Old count or new, 847 observers participated this winter, the third highest number in the history of the Saskatchewan CBC. This brings the number of observers to over 12,000. We have no idea as to the number of different observers involved but they must number in the thousands.

## The birds

This year 90 species were recorded on count day with an additional four recorded

during the count period. Only 107,000 birds were recorded, substantially fewer than last year's record of 173,000. This was partly because observers were unable to conduct a count at Coronach this winter. Last winter this count hosted over 46,000 waterfowl.

As usual, Saskatoon led all counts with 41 species on count day. Six other counts had 30 or more species. Fort Walsh, a perennial challenger to Saskatoon for the most species on count day, had only 26 species. This is the first time since 1994 that this count has had so few species.

## Population trends

Waterfowl numbers were down, in part due to the absence of the Coronach count. Gallinaceous birds were up tremendously over both last year and the previous five years (Table 7). Lack of snow over the previous winter may have improved survivorship over the winter, while last summer's grasshopper outbreak may have allowed for a high production of young.

Most diurnal birds of prey were up, while the results for owls were mixed. Woodpeckers were either stable, or in the case of Black-backed and Pileated Woodpeckers, up substantially.

Concerns about the possible effects of West Nile Virus on members of the crow family were not reflected in the changes in the numbers of this group. Horned Larks, Lapland Longspurs and Snow Buntings were down drastically from last year and previous years. These declines may not, however, be real. When there is no snow cover these species are not forced to frequent roadsides where they may readily be seen. Instead they are dispersed and are difficult to see in stubble or against the background of a barren fallow field. Of the irruptive species, numbers of Bohemian Waxwing were down, but those of Red-

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breasted Nuthatches, both redpolls and White-winged Crossbills were up markedly. Birds attracted to feeders were mostly on the increase. These included the Dark-eyed Junco, House Finch and House Sparrow.

## New Species

With a Christmas Bird Count list of 176 species, any addition to the list is bound to be a surprise. Two new species were added this year and they were indeed outstanding: two species of crane! One was a Sandhill Crane, the other was not a Whooping Crane but a Common Crane. The Sandhill was seen at an abandoned garbage dump near Yorkton on 30 December 2003, while the Common Crane was seen near Leader the previous day.

Kerry Wrishko was heading north from Leader when he saw an unusual crane with some cattle just north of the Leader Bridge. Kerry checked his bird books for but to no avail. A search of the internet convinced Kerry that it was a Common Crane. He later notified Daisy Myers who was conveniently conducting her Leader North count that day. Daisy was able to add the bird to her list. For more on the saga of this Eurasian waif see Kerry's article in this issue and Jason Herzog's photograph on page 6. With these two new species the Saskatchewan CBC list stands at 178 species.

## Other rarities

Other rarities include the CBC's second Western Screech-Owl and Hermit Thrush. The owl, seen on the Govenlock count, was well documented, photographed and admired at length by several of the best birders in the province. Two of these birders, Val Harris and Sheila Lamont, kept up the family penchant for finding rarities by sighting a Hermit Thrush on the Estevan Count.

## Count areas and participants

(Names of compilers are in italics).

1. ARCHERWILL. Faye Black, Lyle Black, Bill Carlson, Sharren Carlson, Joe Cooper, Joyce Cooper, Doris Dewhurst, Joanne Folstad, Ken Folstad, Gerald Hiron, Susan Hiron, Pauline Hnetka, *Elaine Hughes*,

Dorothy Klettberg, Willie Klettberg, Judy Revoy, Doris Slind.

2. ARMIT. *Val Harris*, Sheila Lamont.

3. BANGOR. Allan Bolton, *Lynn Bolton*, Aileen Haywood, Allan Haywood, John Maddaford, Leslie Maddaford.

4. BEAUVAL. Clara Sanderson, *Rick Sanderson*.

5. BETHUNE-DILKE. *Doug Laing*, Vera Laing.

6. BIGGAR. Dale Booth, Linda Schnedar, Brandon Wapple, *Guy Wapple*, Marguerite Wapple, Rob Wapple, Sandra Wapple.

7. BIG RIVER. Colleen Honig, *Glenn Honig*.

8. BIRCH HILLS. Carman Dodge, Margaret Mareschal, *Moe Mareschal*, Don Weidl.

9. BRIGHTWATER RESERVOIR. Blanca Xiomara Mora Alvarez, Doug Ebbert, Keith Hobson, Doug Peters, *Alan Smith*.

10. BROADVIEW. *David Chaskavich*, Lorraine Weidl, Don Weidl, Tony Weidl.

11. BROMHEAD. Martin Bailey, *Carol Bjorklund*, John Whitell.

12. CABRI. *Carman Dodge*.

13. CALDER. John Skinner, *Tim Wendell*.

14. CANDLE LAKE. Carman Dodge, Marg Mareschal, Moe Mareschal, *Don Weidl*.

15. CLARK'S CROSSING. Carol Blenkin, Lucille Bradatsch, Dave Cook, Louise Cook, Yvonne Cuttle, Lorne Duczek, Jennifer Froese, Kenneth Froese, Marilyn Haskins, Marlene Kalanack, Gerard Lahey, Carol Maccan, Bill MacKenzie, Brian McGill, Ted Melville, Keith Pahl, Wayne Shiels, Marten Stoffel, Rick Wallace, *Michael Williams*, Kay Willson, Phil Willson, Jim Wood.

16. CODETTE LAKE. *Doug Boivin*, Carman Dodge, Don Weidl.

17. CRAVEN. Betty Binnie, Jared Clarke, Ramona Clarke, Dave Cowley, Jim Cumming, Lewis Draper, Karen Elliott, Ruth Englund, Jon Herriot, *Trevor Herriot*, Phil Holloway, Penny Johnson, Bob Luterbach, Kevin Moore, Ron Myers, Jim Nordquist, Curtis Pollock.

18. CROOKED LAKE. *Boyd Metzler*, John Pollock.

19. CROOKED RIVER. *Margaret Mehler*, Morley Mehler.

20. CRYSTAL LAKE. *Bill Vaughan*, *Kay Vaughan*.



21. CYPRESS HILLS PROVINCIAL PARK (Centre Block). Al Hartley, Amy Krause, Daniel Krause, Rick Krause, Vicky Krause, David Larson, Margaret Larson, *Melody Nagel-Hisey*.
22. DUCK LAKE. Ed Driver, Keith Hobson, *Alan Smith*.
23. DUNDURN. *Alan Smith*, Don Weidl.
24. DUVAL. George Herber, Merv Hey, Susan McArthur, *Lloyd Saul*.
25. EMMA LAKE. Glen Hanson, Jean Hanson, *Deanna Krug*, Norman Krug.
26. ENDEAVOUR. *Norman Harris*, Dan Hort, Jake Hort.
27. ESTERHAZY-HAZELCLIFFE. Gunther Gauer, Barb Lee, Les Lee, Joan Petracek, Trevor Provick, Wayne Provick, *John Simpson*.
28. ESTEVAN. Cheryl Andrist, *Val Harris*, Sheila Lamont.
29. ESTUARY NORTH. Cathy Cocks, *Dean Francis*, Frances Hartsook, Walter Steinley.
30. FENTON. *Carman Dodge*, Moe Mareschal, Don Weidl.
31. FORT QU'APPELLE. Elizabeth Aitken, James Armstrong, Phyllis Bordass, Evelyn Chubak, Dorothy Falconhauser, Doreen Harman, *Ronald Hooper*, Alice Isfan, Lois Lamontagne, Vic Lamontagne, Jack Lowe, Jean McKenna, Allan Mlazgar, Webb Palmer, Paul Paquin, Fred Warren, Elaine Willox.
32. FORT WALSH. Al Hartley, Val Harris, Ron Jensen, Sheila Lamont, Susan McAdam, Wilkes Parsonage, *Guy Wapple*.
33. GARDINER DAM. Greg Fenty, Mary Gullacher, Val Harris, Stuart Houston, Jeff Jensen, Ron Jensen, Sig Jordheim, Sheila Lamont, Marten Stoffel, *Guy Wapple*, Dan Zazelenchuk.
34. GOOD SPIRIT LAKE. *Bill Anaka*, Joyce Anaka, Virginia Baron, Willie Baron, Dorothy Riesz, Ray Riesz, Lloyd Wilson, Marge Wilson, Julia Wiwchar.
35. GOVENLOCK. *Val Harris*, Ron Jensen, Rick Jones, Sheila Lamont, Susan McAdam, Wilkes Parsonage, Joe Saville, Guy Wapple.
36. GRASSLANDS NATIONAL PARK. Richard Cherepek, Susan Robertson, Colin Schmidt, Greg Scott, *Robert Sissons*.
37. GRAYSON. Carina Helm, *Charles Helm*, Karl Zimmer.
38. HARRIS. Brandon Wapple, *Guy Wapple*, Rob Wapple.
39. HEPBURN. Margaret Mehler, Morley Mehler, *Phyllis Siemens*.
40. HOLBIEN. *Helen Harris*.
41. HUDSON BAY WEST. Len Auger, Matthew Auger, Gail Cadrain, Monique Cadrain, Ian Daisley, *John Daisley*, Brett Lewis, Amy Nagus, Laurie Nielsen, Branden Reimer, Gloria Stang.
42. INDIANHEAD. Jan Beattie, Carol Beaulieu, Denise Beaulieu, Lauren Beaulieu, Mark Beaulieu, Victor Beaulieu, Chris Blair, Bruce Bottomley, Mel Brayford, Sheila Brayford, Peter Cozac, Kay Dixon, Mike Duran, Eileen Escott, Irv Escott, David Gehl, Roberta Gehl, Lansley Gibbens, Roy Hearn, Sharon Hearn, *Gord Howe*, Jim Jinks, Linda Jinks, Tim Keslering, Nick Kucharan, Sharil Kucharan, David Livingstone, Don Livingstone, Jean Livingstone, Dan Loran, Vivian Marten, Chris Nichols, Dora Nichols, Pat Nichols, Bob Nolan, Gladys Nolan, Jim Ollett, Marg Ollett, Tom Redding, Sandra Schreiner, Lorne Scott, Chad Skinner, Chris Skinner, Fred Skinner, Mindy Skinner, Rodney Soron, Ronald Thompson, Anne Willerth, Gord Willerth, Jackie Willoughby, Ken Willoughby, Barry Yan.
43. KAMSACK. George Bernard, Hazel Bernard, Agnes Betz, Don Brock, Marlon Brock, Fred Chernoff, Norma Chernoff, Jeff Conley, Nell Conley, Lindee Dewores, Pat Fisher, Helen Jellson, Gene Kinasevich, Peggy Kinasevich, Rudy Koenigbaur, Bill Koreluk, Bernie LaRocque, Laura Leoppkey, Adaline Nykolishen, Les Pool, Molly Pool, Sidney Rielkoff, *Isabel Ritchie*, Dave Severson, Elsie Severson, Bob Smandych, Don Smandych, Joan Smandych, Salma Smandych, Arlin Smordin, Evelyn Verigin, Ilona Zeiben.
44. KELVINGTON. Pat Finnie, *Dianne Sloan*, Marguerite Sloan.
45. KENASTON. Doug Beckie, *Lawrence Beckie*, Tyler Beckie.
46. KENOSEE LAKE. Boyd Metzler, *John Pollock*.
47. KITCHEN NORTH. *Dallas Fairburn*.
48. KINDERSLEY NORTH. *Jean Harris*, Keith Harris.
49. KINISTINO (HORSESHOE BEND). *Verna Messer*, Cindy Williams.
50. KINLOCH. Elaine Asbjournhus, *Don Forbes*, Cliff Logan, Doreen Wickstrom.
51. KUTAWAGAN LAKE. *Val Harris*, Sheila Lamont.
52. LA RONGE (North). *Dianne Allen*, Jim Mills, Peter Mizanski, Lynn Riese, John Schisler.



53. LA RONGE (South). Bonnie Hamilton, Joan Kidd, Robert Kidd, *Sid Robinson*, Keewatin Trottier, Sekwan Trottier, Tim Trottier, Tukwâkin Trottier, Karen Waters.
54. LAST MOUNTAIN LAKE N.W.A. *Val Harris*, Sheila Lamont.
55. LEADER NORTH. Paul Letkeman, *Daisy Meyers*, George Meyers, Kerry Wrishko.
56. LOVE - TORCH RIVER. Carol Blenkin, *Bert Dalziel*, Duke Dalziel, Joan Dalziel, Kari Dalziel, Sara Dalziel, Scott Edwards, Rosanne Kirkpatrick, Eileen L'Heureux, Paul L'Heureux, Bill Matthews, Lynn Matthews, Lillian Nessel, David Pratt.
57. LUSELAND. Estelle Finley, Graeme Finley, *Kim Finley*, Liam Finley, Robert Finley, Valerie Finley, Brent Honeker, Shirley Honeker, Levi Honeker.
58. MACDOWALL. *Myron Barton*.
59. MAYVIEW. *Judith Graham*.
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63. NISBET FOREST NORTHWEST. Ralph Abrey, *Sandra Jewell*.
64. NISBET FOREST WEST. *Kim Clark*, Kiri Clark, Shamara Clark, Suzanne Clark, Patty Levesque, Bill Marshall, Evelyn Marshall, J. Perkin, Al Scarrow.
65. PIKE LAKE. Tony Allen, Carol Blenkin, John Bond, Donna Bruce, Jill Cornford, Peter Cornford, Yvonne Cuttle, Lorne Duczek, Bob Girvan, Mike Gollop, Mary Gullacher, Robert Johanson, Elaine Konkin, Fred Konkin, Carol Maccan, Margaret Massey, Ted Melville, Hilda Noton, Keith Pahl, *Frank Roy*, Mary Jean Roy, Angela Stern, Marten Stoffel, Kirk Wallace, Michael Williams, Margaret Woloshyn, Jim Wood.
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68. PRINCE ALBERT NATIONAL PARK. Susan Carr, Monica Case, Al Cochet, Lorrie Collingwood, *Dan Frandsen*, Judy Frandsen, Scott Hamilton, Bernadette Horn, Herb Hudson, Brad Lloyd, Frances Lloyd, Fiona Moreland, Brad Muir, Adam Pidwerbeski, Lawrence Pidwerbeski, Samuel Pidwerbeski, Norm Stolle, Don Sinclair.
69. PUNNICHY. *Jason Benko*, Angela Lee.
70. QU' APPELLE VALLEY DAM. Carol Blenkin, John Boland, Robert Johanson, Carol Maccan, Stan Shadick, Jan Tedesco, Guy Wapple, *Michael Williams*, Jim Wood.
71. RAYMORE. *Val Harris*, Sheila Lamont.
72. REGINA. Keith Barr, Lionel Bonneville, Stephane Bonneville, John Burch, Jared Clarke, Jim Cummings, Lyn Dbroskofsky, Jim Elliot, Shirley Friel, Shirley Gerlock, Susan Graham, Jon Herriot, Trevor Herriot, *Dale Hjertaas*, Paule Hjertaas, Elaine Hopfner, Phyllis Ilsley, Linda Langenbacher, Rheal Laroche, Bob Luterbach, Lauren Mang, Jim Nordquist, Diether Peschken, Brian Rainey, Ed Rogers, Margaret Skeel, Diane Smith, Michael Soroski, Frank Switzer, May Switzer.
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79. SHAMROCK. Donna Heinrichs, Gladys Heinrichs, *Hugh Henry*, Janet Samoisette.

80. SNOWDEN. Eleanor Bodnaruk, Ann Boehler, Yvonne Englehart, Diane Friesen, Don Friesen, Ed Hagel, *Irene Hagel*, Ernie Hall, Betty Heil, Lily Kuzniar, Bob Olsen, Jeanette Olsen, Jack Pickett, Karen Priestley, Bill Schemenauer, Vera Schemenauer, Orville Shwetz, Vicky Shwetz, Walter Stevenson, Irene White, Les White.

81. SOMME. Edwin Billeter, Sharon Birch, Wesley Black, Irene Brehmer, Florence Chase, Lorne Chase, Arthur Harris, Barbara Hooper, Margaret Hooper, *Ronald Hooper*, Gordon Johnson, Elsie Kerr.

82. SPALDING. Dora Knutson, *Velma Spizawka*, William Spizawka.

83. SPINNEY HILL. *Ed Driver*, Margaret Driver.

84. SPRUCE HOME, SW. *Sandra Jewell* (non-participating compiler) Beth Neal, Dale Neal.

85. SQUAW RAPIDS. *Val Harris*, Sheila Lamont, Marten Stoffel, Guy Wapple, Dan Zazelenchuk.

86. STENEN. *Frances Buryk*, *Peter Buryk*.

87. STOCKHOLM. Douglas Flatt, *Gordon Smith*.

88. SWIFT CURRENT. Evelyn Anderson, James Beattie, Jackie Bolton, Norris Currie, Laurent Dudragne, Mary Ann Dudragne, Ryan Dudragne, Ester Eering, Dave Green, Gord Hagen, Chantal Hamel, Hugh Henry, Jeff Jensen, Julie Jensen, *Ron Jensen*, Doreen Kreuger, Walter Kreuger, Arelyne Lawson, Noreen Liebel, Ralph Loran, Ed Nein, Ahmad Musln, Beth Parchman, Larry Peterson, Rachel Peterson, Ernest Schlichting, Shirley Schlichting, Myra Smith,

John Stephenson, Irene Stinson, Fred Switzer, Margaret Switzer, Joyce Tallon, Joe Unger, Lynne Unger, John Weston.

89. TISDALE. Carl Mohr, *Joyce Mohr*.

90. TOGO. Barb Elsasser, *Doug Elsasser*, Helen Tomochko, Claudia Zengl, Konrad Zengl.

91. TORCH RIVER VALLEY. Ken Blaine, Lorna Blaine, Sylvia Fall, *George Lidster*, Jean Lidster, Dale Nelson, Jeannette Nelson, Beatrice Runn, Holly Toews, Ruben Toews.

92. TURTLEFORD. Hank DeGraff, Marlene DeGraff, *Brent Keen*, Marg Uhlig, Hannah Warrington, David Woof.

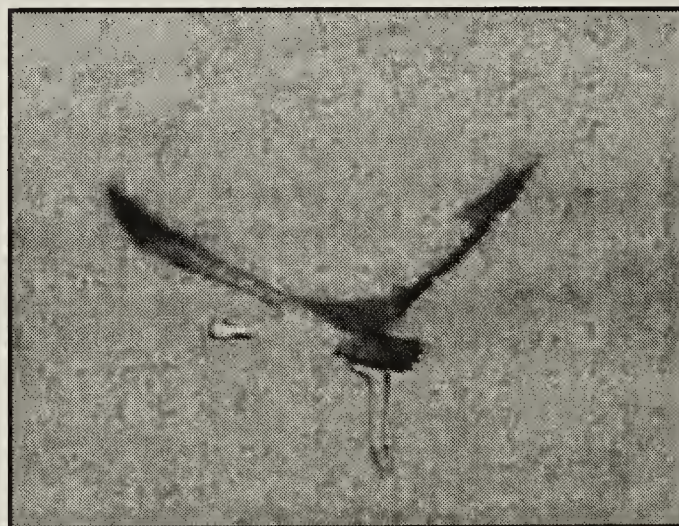
93. TURTLE LAKE. *Merle Robinson*.

94. WEYBURN. Leo Belanger, Peter Beskowiney, Bob Cameron, *Dick Gutfriend*, Alma McCormick, Doyle Thomas, Val Thomas, Sid Trepoff.

95. WHITE BEAR. Darryl Jordheim, *Sig Jordheim*, Aislin MacColloch, Elijah MacColloch, Greg MacColloch, Keely MacColloch, Lynette MacColloch.

96. WHITEWOOD. Cliff Ashfield, Freda Ede, Tom Ede, Wilfred Jordens, Bernice Juzyniec, Felix Juzyniec, Ron Kittler, Joyce Kydd, Doreen McPhail, Jean Meadows, *Boyd Metzler*, Donna Mohr, Randy Morrison, Brenda Pollock, John Pollock, Florence Pritchard, Lenore Santo, Carol Sawatzke, Diane Veresh, Pat Ward, Jean Wilson.

97. YORKTON. *Bill Anaka*, Joyce Anaka, Cliff Dixon, Lillian Dixon, Irma Esopenko, Mavis Fairclough, Elinor Hjertaas, Jim Jowsey, Shirley Jowsey, Harley Large, Ruth Large, Joyce Muir, Dorothy Riesz, Ray Riesz, Dorothy Skene, Ed Skene, Harold Wilkinson, Lloyd Wilson, Marge Wilson, Julia Wiwchar.



***Common Crane photographed on 8 January 2004 about 9 km north of Leader (1 km west of Hwy 21 on the north side of the South Saskatchewan River)***

***Jason Herzog***



Figure 1. Location of 2003 counts (numbers correspond to those in text under Count areas and participants).

Natural Vegetation Zones\*

- A. Subarctic Woodland
- B. Northern Boreal Forest
- C. Southern Boreal Forest
- D. Aspen Parkland
- E. Mixed Prairie
- F. Dry Mixed Prairie
- G. Cypress Hills

\*adapted from: Thorpe, J. 1999. Natural Vegetation. P. 133 in Atlas of Saskatchewan (K. Fung, ed). Univ. of Sask., Saskatoon.

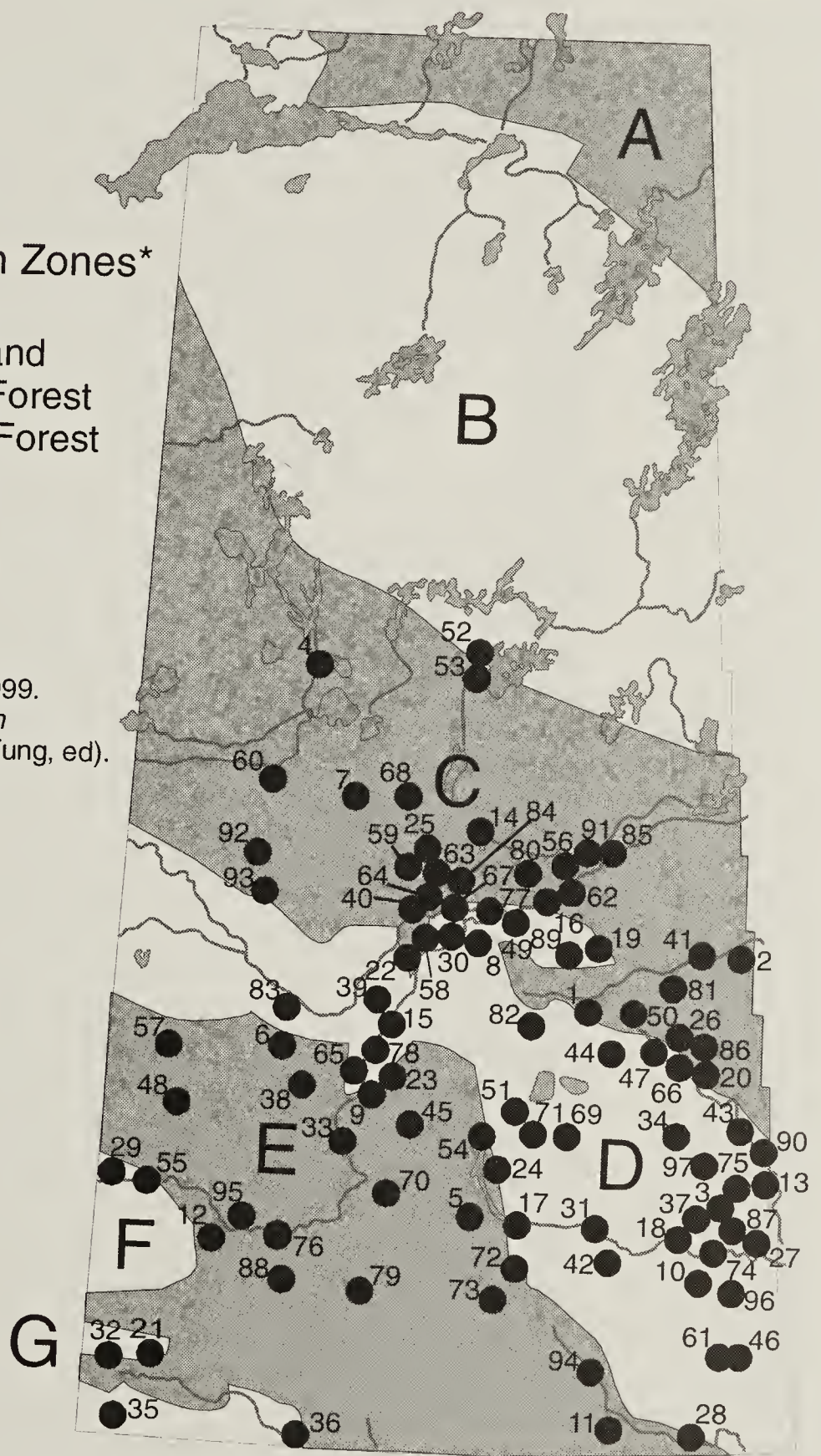




Table 1 Weather and Conditions

Locality	Date	Minimum Temp. (°C)	Maximum Temp. (°C)	Minimum Wind (km/hr)	Maximum Wind (km/hr)	Minimum Snow (cm)	Maximum Snow (cm)	Sky A.M.	Sky P.M.
Archerwill	Jan 4	-33	-30	9	30	5	5	mostly clear	mostly clear
Armit	Jan 3	-32	-30	5	10	5	10	mostly clear	clear
Bangor	Dec 27	-24	-20	2	6	6	18		
Beauval	Dec 21	2	4	3	4	16		clear	clear
Bethune-Dilke	Dec 22	-5	2	10	15	10	12	mostly clear	mostly clear
Biggar	Dec 27	-12	-5	0	6	0	5	cloudy	cloudy
Big River	Jan 2	-17	-14	2	5	12	16	mostly clear	partly cloudy
Birch Hills	Dec 21	-4	4	6	11	0	6	cloudy	cloudy
Brightwater Res.	Dec 30	-17	-10	0	5	0	19	clear	clear
Broadview	Dec 23	-11	-5	0	0	4	6	clear	clear
Bromhead	Dec 14	-6		20	29	15	25	overcast	overcast
Cabri	Dec 25	-5	0	20	29	0	2	mostly clear	partly cloudy
Calder	Dec 28		-4		20		12	overcast	overcast
Candle Lake	Dec 28	-10	-5	0	5	4	8	partly cloudy	partly cloudy
Clark's Crossing	Dec 20	-7	5	9	22	2	6	cloudy	cloudy
Codette Lake	Jan 2	-24	-20	0	10	5	8	partly cloudy	mostly clear
Craven	Dec 14	-8	-6	10	20	15	40	partly cloudy	partly cloudy
Crooked Lake	Dec 14	-3	-2	15	25	2	15	partly cloudy	overcast
Crooked River	Jan 3	-35	-30	0	1	6	8	clear	clear
Crystal Lake	Jan 3	-28	-18	2	19	7	12	mostly clear	mostly clear
Cypress Hills PP	Jan 2	-15	-5	12	19	20	35	mostly clear	partly cloudy
Duck Lake	Dec 23	-10	-5	0	5	2	5	clear	clear
Dundurn	Jan 4	-32	-28	10	15	5	10	clear	clear
Duval	Dec 28	-8	-6	5	20	4	10	partly cloudy	partly cloudy
Emma Lake	Dec 19	-6	-4	6	11	8	12	partly cloudy	partly cloudy
Endeavour	Dec 20	-15	-4	2	5	10	15	mostly clear	mostly clear
Esterhazy	Dec 27	-10	-5					overcast	heavy snow
Estevan	Dec 26	-4	2	2	5	0	25	partly cloudy	cloudy
Estuary North	Dec 19	5	8	5	30	0	1	mostly clear	partly cloudy
Fenton	Dec 20	-13	0	2	5	4	4	clear	partly cloudy
Fort Qu'Appelle	Dec 15	-8	-8	10	20	6	9	cloudy	cloudy
Fort Walsh	Dec 20	4	10	0	6	5	60	cloudy	cloudy
Gardiner Dam	Dec 22	-6	2	0	4	0	5	clear	clear
Good Spirit Lake	Dec 16	-10	-9	0	5	10	15	overcast, fog	cloudy
Govenlock	Dec 21	-1	5	0	20	0	20	cloudy	partly cloudy
Grasslands NP	Dec 22	-10	-8	0	5	0	30	clear	clear
Grayson	Dec 23	-5	0	0	5	0	15	mostly clear	mostly clear
Harris	Dec 31	-21	-17	0	1	0	5	cloudy, fog	cloudy
Hepburn	Dec 27	-5	0	0		5	10	mostly clear	mostly clear
Holbien	Dec 30			0		4	6	mostly clear	light snow
Hudson Bay West	Jan 3	-32	-27	8	10			clear	clear
Indian Head									
Kamsack	Jan 1	-24	-24		39	60		partly cloudy	
Kelvington	Jan 2	-20	-19	20	29	7	10	overcast	overcast
Kenaston	Dec 19	-8	-3	10		10		partly cloudy	mostly clear
Kenosee Lake	Jan 3	-26	-19	10	15	15	35	overcast	mostly clear
Ketchen North	Dec 26	-13	-5	0	5	10	14	mostly clear	partly cloudy
Kindersley North	Dec 29	-4		0	0	0	0		mostly clear
Kinistino	Jan 5	-30	-24	4	6	4	10	mostly clear	partly cloudy



Table 1 Weather and Conditions

Locality	Date	Minimum Temp. (°C)	Maximum Temp. (°C)	Minimum Wind (km/hr)	Maximum Wind (km/hr)	Minimum Snow (cm)	Maximum Snow (cm)	Sky A.M.	Sky P.M.
Kinloch	Dec 15	-12	-8	5	20	8	11	cloudy	partly cloudy
Kutawagan Lake	Dec 29	-15	-10	3	15	0	10	overcast	cloudy
LaRonge North	Dec 14	-22	-8	0	2	5	15	overcast, fog	overcast, fog
LaRonge South	Dec 26	-10	-5	2	5	20	60	mostly clear	mostly clear
Last Mountain Lake	Jan 1	-12	-10	2	5	0	10	partly cloudy	mostly clear
Leader North	Dec 29	-12	-6	2	4	1	4	light snow	light snow
Love-Torch River	Dec 28	-16	-12	0	10	10	20	overcast	overcast
Luseland	Dec 26	-7	1	2	11	0	2	mostly clear	partly cloudy
MacDowall	Dec 25	-5	1	2	3	2	3	mostly clear	partly cloudy
Mayview	Dec 26	-6		2	11			mostly clear	mostly clear
Meadow Lake	Dec 26	-6	-2	0	1	0	12	mostly clear	mostly clear
Moose Mountain	Jan 4	-30	-23	15	30	10	20	clear	clear
Nipawin	Dec 27	-7	-3	10	15	5	10	overcast	overcast
Nisbet Forest NW	Dec 14	-7		1		2	3	light snow	light snow
Nisbet Forest West	Dec 26	-10	-3	0	5	0	15	cloudy	mostly clear
Pike Lake	Jan 3	-34	-27	9	19	2	5	mostly clear	clear
Preeceville	Jan 1	-28	-10	5	10	10	13	partly cloudy	cloudy
Prince Albert	Dec 14	-10	-8	10	10	4	6	overcast	overcast
Prince Albert NP	Dec 19	-7	-5	0	5	10	15	partly cloudy	mostly clear
Punnichy	Dec 28	-9	-7	2	2	4	12		cloudy
Qu'Appelle Dam	Dec 14	-5	0	5	12	2	6	partly cloudy	cloudy
Raymore	Dec 25	-5	-3	10	15	1	10	cloudy	cloudy
Regina	Dec 26	-13	-3	0	2	10	20	mostly clear	cloudy
Rouleau	Jan 1	-14	0	0	24	0	55	overcast	clear
Round Lake	Dec 20	-5	-1	0	10	0	30	clear	partly cloudy
Saltcoats	Dec 27	-6	-6	15	29			overcast	overcast
Sask. Landing PP	Dec 14	-3	4	0	20	0	20	partly cloudy	cloudy
Sask. R. Forks	Dec 29	-13	-11	0	5	3	5	overcast	partly cloudy
Saskatoon	Dec 26	-13	-3	0	9	2	5	mostly clear	mostly clear
Shamrock	Jan 2	-20	-20	30	35	10	15	overcast	overcast
Snowden	Jan 5	-30	-25	4	6	3	15	mostly clear	partly cloudy
Somme	Jan 5	-25	-20	15	30	6	8	partly cloudy	partly cloudy
Spalding	Dec 26	-14	-8	2	3	3	3	light fog	fog
Spinney Hill	Dec 26	-7	1	0	10	0	3	mostly clear	mostly clear
Spruce Home, SW	Dec 22	-6	1	2	11	2	3	mostly clear	partly cloudy
Squaw Rapids	Jan 4	-38	-27	20	30	15	20	partly cloudy	light snow
Stenen	Jan 1	-22	-12	0	0	20	25	overcast	overcast
Stockholm	Jan 1	-20		0	5	10	20	partly cloudy	partly cloudy
Swift Current	Jan 3	-27	-23	1	3	15	25	partly cloudy	overcast
Tisdale	Dec 26	-10	-6	5	15	3	4		mostly clear
Togo	Jan 4	-29	-26	30	40	10	15	mostly clear	mostly clear
Torch River Valley	Jan 4	-38	-33	10	15	25	30	mostly clear	mostly clear
Turtleford	Dec 29	-14	-12	0	5	2	5	overcast, fog	overcast
Turtle Lake	Dec 31	-20		15	20	3		partly cloudy	partly cloudy
Weyburn	Dec 18	-15	-12	5	10	6	10	mostly clear	mostly clear
White Bear	Dec 28	-15	-9	0	0	8	31	mostly clear	mostly clear
Whitewood	Dec 28	-7	-4	40	60	10	30	overcast, snow	partly cloudy
Yorkton	Dec 30	-12	-9	2	5	10	13	overcast, snow	overcast



Table 2 Coverage

Locality	Effort						Habitat														
	Participants	Km on Foot	Hours on Foot	Km by Vehicle	Hours by Vehicle	Hours at Feeders	Evergreen Forest	Mixed Forest	Deciduous Forest	Aspen / Farmland	Aspen / Prairie	Native Prairie	Tame Pasture	Farmland	Farmstead	Urban	Open Water	Riparian	Muskeg	Landfill	
Archerwill	16	1	1					20	5					50	20	5					
Armit	2	1	1	275	9		20	20	20	30						10					
Bangor	6				3	10			10					10	80						
Beauval	2	3	2	150	4		20	25	25							20			10		
Bethune-Dilke	2									5	2	5		80	5	3					
Biggar	7	19	10	386	14	2				17				40		43					
Big River	2	2	1			2	70	20					10								
Birch Hills	4	3	2	121	5	2				50				40	5	5					
Brightwater Res.	5	5	2	123	6					5	5	25	10	10	25	15		5			
Broadview	4	4	2	137	5	2			20	30	10	5	10	10	10	5					
Bromhead	3	1	1	140	7									90	10						
Cabri	1	1	1	128	3	1					5	5	5	75	5	5					
Calder	2	5		37	4					30	30		20	20							
Candle Lake	4	6	2	168	8		30	30	30							10					
Clark's Crossing	23	20	14	627	33					25	10			15	25	10	10			5	
Codette Lake	3	2	1	108	5		15	15	15	25				15	10		5				
Craven	17	12	3	605	21	5				30		10	10	30	10	10					
Crooked Lake	2			142	6				20	20				20	10	20	10				
Crooked River	2			25	1	4		35						40	25						
Crystal Lake	2			55	3	3	10	10	10	70											
Cypress Hills PP	8	10	4			1	60	20			10	10									
Duck Lake	3	10	3	90	5		10	30	10	10				20		20					
Dundurn	2	1	1	160	7				5	5	10	5	10	45	10	10					
Duval	4	2	1	124	5	1				32	7	2		34	5	20					
Emma Lake	4	3	2	55	4	5		95							5						
Endeavour	3	3	3	20	2	2				20			10		60	10					
Esterhazy	6			44	3	4				30				70							
Estevan	3	3	2	121	7				40			5		10	15	10	20				
Estuary North	4	4	8	120	8	3			50			20		20	10						
Fenton	3	2	1	145	4	2			10	49			5	15	15	5	1				
Fort Qu'Appelle	17	2	1	202	12	8			20	20			20			30	10				
Fort Walsh	7	32	16	240	8			43				2		46				9			
Gardiner Dam	11	21	11	878	27					3				82			12	3			
Good Spirit Lake	9	2	1	124	7	2		5	10	10			30	30	5	10					
Govenlock	8	8	5	313	16							65		25	10						
Grasslands NP	5	5	4	91	5							85	5	5		5					
Grayson	3	6	2	40	3	1			10	25				35	10	15	5				
Harris	3	7	4	203	6					36				51		13					
Hepburn	3		2													100					
Holbien	1					4	10	10						20							
Hudson Bay West	11			30	2	1		25						25	25	25					
Indian Head	52							5		20					10	60	5				
Kamsack	30						9			8	8	10			10		2				
Kelvington	3	1	0	86	2	8				30				60	10						
Kenaston	3		2	160	6	1				50				40	10						
Kenosee Lake	2			114		1		5	40	10	5					40					
Ketchen North	1	1	2	50	2	6				30			20	20	20	10					
Kindersley North	2	2	1	71	4									8	30	60	2				
Kinistino	2	1	1		2	1		30					40		30						



Table 2 Coverage

Locality	Effort						Habitat													
	Participants	Km on Foot	Hours on Foot	Km by Vehicle	Hours by Vehicle	Hours at Feeders	Evergreen Forest	Mixed Forest	Deciduous Forest	Aspen / Farmland	Aspen / Prairie	Native Prairie	Tame Pasture	Farmland	Farmstead	Urban	Open Water	Riparian	Muskeg	Landfill
Kinloch	4	6	4	52	2	2	40	20	20	10					10					
Kutawagan Lake	2	1	1	144	5					20	10	10		30	15	15				
LaRonge North	5	14	2	98	5	6		70	20							10				
LaRonge South	9	10	6	55	4	4	25	25							20	20				10
Last Mountain Lake	2	1	0	155	7					10		30		40	10	10				
Leader North	4	5	2	20	2	2						50	10	30	10					
Love-Torch River	14	11	4	221	11	13	10	10		60					10	10				
Luseland	9	9	3	174	9	2				30	10	10	10	10	10	20				
MacDowall	1	2	1	44	2	3	30	10	10	30			10		10					
Mayview	1		1			4		50				50								
Meadow Lake	7																			
Moose Mountain	4	1	1	111	4				30	50					10	10				
Nipawin	13	3	2	100	8	8	10							10	15	60	5			
Nisbet Forest NW	2					3		50						40	10					
Nisbet Forest West	9	2	1	50	3	12		10		30				60						
Pike Lake	27	27	24	518	22				15	10			5	15	15	40				
Preeceville	2			4	0	8									100					
Prince Albert	22	30	14	412	28	7				5	5				5	85				
Prince Albert NP	18	50	28				15	40	28							2	15			
Punnichy	2			136	3				10	50	10		10	20						
Qu'Appelle Dam	9	8	7	313	8				10	10	20	10	10	10	10	10	10			
Raymore	2	1	1	89	5					80				10		10				
Regina	31	80	25	798	34	3				10			10	30	20	30				
Rouleau	9	3	2	121	4	4				5				90	5					
Round Lake	4			193	7	3			40	30				20			10			
Saltcoats	8	3	1	156	8	4				95						5				
Sask. Landing PP	15	32	16	321	20						10	25		50	14		1			
Sask. R. Forks	2	5	2	80	5		15	15	10	5			5	40	5		5			
Saskatoon	115	136	79	851	52	100				10				5	15	65	5			
Shamrock	4	1	1	93	6									80	20					
Snowden	20		2	76	3	4			20					20	40	20				
Somme	12	1	1	139	4	8		20	20	20				10	10	20				
Spalding	3	1	2	5	5	24			10	40				25		25				
Spinney Hill	2	2	2	160	6			5		60	20			15						
Spruce Home, SW	2					7								10	90					
Squaw Rapids	5	14	7	316	12		10	60	10					5	5		10			
Stenen	2					3	50				50									
Stockholm	2	2	1	94	6					10	10	10		60	10					
Swift Current	36	47	21	297	18	40						15	5	64	5	10	1			
Tisdale	2				6											100				
Togo	5		3						50	20	10		10	5	5					
Torch River Valley	10			50	2	9	10	10	10						70					
Turtleford	6	11	4	75	5	8				70				20	10					
Turtle Lake	1			20	2	6	20	40		40										
Weyburn	8	2	1	170	3	12								50	10	40				
White Bear	7	15	3	100	2							20		40	40					
Whitewood	21	3	3	354	11	41				20					10	70				
Yorkton	20	1	2	236	15	3				5		5		35	5	49	1			



Table 3-1 Species found in 9 or more localities () = seen during count period

Aves	Archerwill 4 Jan 2004	Armit 3 Jan 2004	Bangor 27 Dec 2003	Beauval 21 Dec 2003	Bethune-Dilke 22 Dec 2003	Biggar 27 Dec 2003	Big River 2 Jan 2004	Birch Hills 21 Dec 2003	Brightwater Res. 30 Dec 2003	Broadview 23 Dec 2003	Bromhead 14 Dec 2003	Cabri 25 Dec 2003
Canada Goose						3						
Mallard						1			(8)			
Common Goldeneye												
Bald Eagle	1		1						(2)			
Northern Goshawk	(1)					1				1		
Golden Eagle												
Merlin						1						
Gray Partridge			32		30			40		10	233	16
Ring-necked Pheasant											180	1
Ruffed Grouse	8	8		5			(2)	6		1		
Sharp-tailed Grouse			51	16	3	56		(2)	36	75	75	
Rock Pigeon			13		23	214		47	22	70	32	88
Great Horned Owl	1		2			(1)		2	1	1	2	1
Snowy Owl	1		1					(1)			2	2
Great Gray Owl				(1)								
Downy Woodpecker	7	1	5	1		(1)	2	5	1	5		1
Hairy Woodpecker	10		7	2		1		6		1		
Black-backed Woodpecker												
Northern Flicker												
Pileated Woodpecker	3		1					(1)				
Northern Shrike	1					1						
Gray Jay	5	2		8			2					
Blue Jay	28	1		4		2	4			2		
Black-billed Magpie	27	23	28	9	4	196	1	49	88	25	3	17
Common Raven	12	92	51	81	(3)	14	6	17		1		
Horned Lark												7
Black-capped Chickadee	56	23	37	12	3	35	5	34	4	29	1	1
Boreal Chickadee	5	3		1								
Red-breasted Nuthatch	7			(1)		9	2					
White-breasted Nuthatch	3		2				1			1		
Brown Creeper												
American Robin		1				7		3		(1)		(1)
European Starling			2					28	5		18	
Bohemian Waxwing	1				(24)	425				(4)		5
Cedar Waxwing	(20)					(2)						
Dark-eyed Junco	4		5			10				4		
Snow Bunting	65	44	32		12	(2)		202	50	(15)	55	
Pine Grosbeak	98	47	6	20		1	6	(4)				
House Finch						32				10		
White-winged Crossbill	125	30				18				30		
Common Redpoll	176	189	7	21		317	13	245	129	218	31	4
Hoary Redpoll	1	11				4		1			2	
Pine Siskin	6											
Evening Grosbeak	71	34		24								
House Sparrow	88	7	152		50	837		135	240	304	631	220
Total Birds Count Day	811	521	436	204	125	2189	42	821	577	801	1267	363
Total Birds Count Period	832	521	436	207	154	2195	44	829	587	821	1267	364
Total Species Count Day	27	17	20	13	7	25	10	16	11	21	14	12
Total Species Count Period	29	17	20	16	10	29	11	20	13	24	14	13



Table 3-2 Species found in 9 or more localities () = seen during count period

Aves	Calder 28 Dec 2003	Candle Lake 28 Dec 2003	Clark's Crossing 20 Dec 2003	Codette Lake 2 Jan 2004	Craven 14 Dec 2003	Crooked Lake 14 Dec 2003	Crooked River 3 Jan 2004	Crystal Lake 3 Jan 2004	Cypress Hills PP 2 Jan 2004	Duck Lake 23 Dec 2003	Dundurn 4 Jan 2004	Duval 28 Dec 2003
Canada Goose			493									
Mallard						17						
Common Goldeneye			33		1							
Bald Eagle			1	5		1					1	
Northern Goshawk												
Golden Eagle					1				1		1	1
Merlin			2		1							
Gray Partridge			65		95	9					32	14
Ring-necked Pheasant												
Ruffed Grouse	3	2		2						1		(2)
Sharp-tailed Grouse	1		67	9	251	31			41	7	16	6
Rock Pigeon			238		134	4				35	2	30
Great Horned Owl			8			1					3	1
Snowy Owl												
Great Gray Owl												
Downy Woodpecker	3	2	4		13	3	3	2	4	1		1
Hairy Woodpecker		7	7	2	14	3	3	1	4	4		(1)
Black-backed Woodpecker										1		
Northern Flicker			1		1				1			
Pileated Woodpecker		6		3								
Northern Shrike					(1)							
Gray Jay		15		4			1			4		
Blue Jay	2	1		3	22	5	4	3		5		(4)
Black-billed Magpie	18	6	291	16	89	34	2	1	11	25	77	30
Common Raven	9	104	109	13	28	27	2	6	21	21	6	6
Horned Lark												
Black-capped Chickadee		32	84	28	59	53	6	6	77	13	14	14
Boreal Chickadee		12								14		
Red-breasted Nuthatch		16	4		1				6	10		
White-breasted Nuthatch	1			1	14	5			1			
Brown Creeper												
American Robin					1	3						
European Starling			54		12							
Bohemian Waxwing					28				35	52	68	199
Cedar Waxwing					2					1		
Dark-eyed Junco			2		7							
Snow Bunting	80		4		104	320	15				3	6
Pine Grosbeak		27	1	21			26	7		4		
House Finch			50		(1)							
White-winged Crossbill		19		6	2					18		
Common Redpoll	85	101	590	68	325	42	18	8	6	81	1375	168
Hoary Redpoll							12					31
Pine Siskin			1									
Evening Grosbeak		43					34	1				
House Sparrow			2347	1	315	55				151	74	334
Total Birds Count Day	202	395	4460	182	1530	613	126	35	210	449	1672	841
Total Birds Count Period	202	395	4460	182	1532	613	126	35	210	449	1672	848
Total Species Count Day	9	16	26	15	29	17	12	9	14	20	13	14
Total Species Count Period	9	16	26	15	31	17	12	9	14	20	13	17



Table 3-3 Species found in 9 or more localities    () = seen during count period

Aves	Emma Lake 19 Dec 2003	Endeavour 20 Dec 2003	Esterhazy 27 Dec 2003	Estevan 26 Dec 2003	Estuary North 19 Dec 2003	Fenton 20 Dec 2003	Fort Qu'Appelle 15 Dec 2003	Fort Walsh 20 Dec 2003	Gardiner Dam 22 Dec 2003	Good Spirit Lake 16 Dec 2003	Govenlock 21 Dec 2003	Grasslands NP 22 Dec 2003
Canada Goose				557			65		1303			
Mallard				461		3	58	2	1192		(5)	
Common Goldeneye				11			5		135			
Bald Eagle							1	6	42		1	2
Northern Goshawk					1	1	(1)	2		(1)		
Golden Eagle								9			5	4
Merlin									1			
Gray Partridge					39	12	(5)		29	11	14	53
Ring-necked Pheasant				21	61		(1)	1				
Ruffed Grouse		1					(1)	2		4		
Sharp-tailed Grouse		(7)	15	(22)	105	4	18	80	41	36	15	53
Rock Pigeon		30	10	2	75	11	(14)		201	1		
Great Horned Owl				2	1	4	1	3	5	(1)	6	
Snowy Owl							(1)		1		1	
Great Gray Owl												
Downy Woodpecker	5		2	2	3	4	13	1	5	4		
Hairy Woodpecker	2	5	1	4	4	3	5	1	2	5		
Black-backed Woodpecker	1											
Northern Flicker												
Pileated Woodpecker		1	(2)		2	2	(1)			(1)		
Northern Shrike		1										
Gray Jay	5											
Blue Jay	7	4	8			2	8		3	6		
Black-billed Magpie	3	10	5	6	73	52	33	92	199	47	17	14
Common Raven	104	30	3			20	13	1	14	52		
Horned Lark						(2)		2	2		6	
Black-capped Chickadee	101	22	12	23	16	48	94	47	15	85		
Boreal Chickadee	26											
Red-breasted Nuthatch	37	1	1				1	6	1	1		
White-breasted Nuthatch	7	4	(1)	4	2	1	8		1			
Brown Creeper	1							3	1			
American Robin		(1)			5							
European Starling				2	20	(20)					8	
Bohemian Waxwing				286			(40)		34	35		
Cedar Waxwing		(5)		1		(19)	15			(6)		
Dark-eyed Junco			4		1		3	1	4	1		1
Snow Bunting		75		1004	10			191	53	143	125	25
Pine Grosbeak	14	29	(1)		4	23	20			38		
House Finch												
White-winged Crossbill				15			(20)	2	1			
Common Redpoll	129	63	16	17	82	194	93	5	244	34	4	
Hoary Redpoll				(1)					8			
Pine Siskin							1			102		
Evening Grosbeak	4	35	6									
House Sparrow	3	30	50	40	246	23	86	96	984	83	253	100
Total Birds Count Day	449	342	133	2609	750	415	550	604	4681	688	476	252
Total Birds Count Period	450	356	137	2632	750	456	636	604	4681	699	482	252
Total Species Count Day	16	17	13	19	19	18	21	26	35	18	18	8
Total Species Count Period	17	21	16	21	19	21	31	26	35	23	20	8

Table 3-4 Species found in 9 or more localities () = seen during count period

Aves	Grayson 23 Dec 2003	Harris 31 Dec 2003	Hepburn 27 Dec 2003	Holbien 30 Dec 2003	Hudson Bay West 3 Jan 2004	Indian Head Dec 2003	Kamsack Jan 2004	Kelvington 2 Jan 2004	Kenaston 19 Dec 2003	Kenosee Lake 3 Jan 2004	Ketchen North 26 Dec 2003
Canada Goose						683					
Mallard	8					65					
Common Goldeneye						13					
Bald Eagle						8	1				
Northern Goshawk											1
Golden Eagle		2				2					
Merlin											
Gray Partridge		28				280		3	11		
Ring-necked Pheasant											
Ruffed Grouse	2				(6)	6	4	2			3
Sharp-tailed Grouse	48	57		2	9	557			17		
Rock Pigeon	14	160				101		2	61	1	
Great Horned Owl		1				4			(1)	1	(1)
Snowy Owl		1				6	1		(1)		
Great Gray Owl											
Downy Woodpecker	2	5		2	2	27	28	3		7	2
Hairy Woodpecker	2	2		2	1	29	33	3		16	3
Black-backed Woodpecker											
Northern Flicker											
Pileated Woodpecker							7	2			
Northern Shrike											(1)
Gray Jay					3		10				2
Blue Jay				2	3	23	86	1		11	7
Black-billed Magpie	12	106		2	25	171	18	17	37	35	19
Common Raven	1	2		1	232	103	19	24	1	1	17
Horned Lark		37							5		
Black-capped Chickadee	12	15	3	8	5	243	204	8	2	130	10
Boreal Chickadee					1		31				
Red-breasted Nuthatch			2		2	50	25			3	2
White-breasted Nuthatch					2	26	37			6	2
Brown Creeper											
American Robin						4					
European Starling											
Bohemian Waxwing	21						100	6			
Cedar Waxwing						61					
Dark-eyed Junco						55	35	1		1	
Snow Bunting		2			104	426	100	800	375	28	
Pine Grosbeak			2	10	46	3	412	72		9	21
House Finch						53	2				
White-winged Crossbill		4				4				148	
Common Redpoll	108	118		18	54	351	416	191	60	85	60
Hoary Redpoll		2	3							2	4
Pine Siskin				10		15	71				
Evening Grosbeak				30	129		460				6
House Sparrow	12	256	1		12	1060	412	30	62	166	52
Total Birds Count Day	242	800	11	87	630	4464	2515	1165	632	657	211
Total Birds Count Period	242	800	11	87	636	4464	2515	1166	634	657	213
Total Species Count Day	12	18	5	11	16	36	26	16	11	19	16
Total Species Count Period	12	18	5	11	17	36	26	17	13	19	18



Table 3-5 Species found in 9 or more localities    () = seen during count period

Aves	Kindersley North 29 Dec 2003	Kinistino 5 Jan 2004	Kinloch 15 Dec 2003	Kutawagan Lake 29 Dec 2003	LaRonge North 14 Dec 2003	LaRonge South 26 Dec 2003	Last Mountain Lake 1 Jan 2004	Leader North 29 Dec 2003	Love-Torch River 28 Dec 2003	Luseland 26 Dec 2003	MacDowall 25 Dec 2003
Canada Goose											
Mallard								4			
Common Goldeneye											
Bald Eagle			1							1	
Northern Goshawk			(1)			1			2		1
Golden Eagle								1			
Merlin	1										
Gray Partridge	33	6	(8)	13					7	6	25
Ring-necked Pheasant								6			
Ruffed Grouse		1	4		7	3			9		2
Sharp-tailed Grouse	(4)			43			45	50		(4)	30
Rock Pigeon	53		12	8			4	9	10	30	20
Great Horned Owl	3		(1)	1			2	2	(1)	3	2
Snowy Owl	(3)			3						1	
Great Gray Owl		1							1		1
Downy Woodpecker		2	5		5	1		2	4	3	3
Hairy Woodpecker	1		8	2	3	2			3	3	4
Black-backed Woodpecker			1						(1)		
Northern Flicker										(1)	
Pileated Woodpecker		1	3		1	(1)			1		1
Northern Shrike			(1)						(1)	(1)	
Gray Jay		2	14		22	9			7		7
Blue Jay		2	20		2	1		2	7	(1)	5
Black-billed Magpie	19	8	12	31			16	12	41	65	9
Common Raven		1	26	3	39	86			88	(2)	2
Horned Lark	10									7	
Black-capped Chickadee		8	45	9	31	9	11	2	83	17	18
Boreal Chickadee					7	5			(1)		
Red-breasted Nuthatch			5			2			9	4	
White-breasted Nuthatch			9						(1)		1
Brown Creeper											
American Robin											
European Starling				11							
Bohemian Waxwing	(6)								7		9
Cedar Waxwing										25	
Dark-eyed Junco					4				3		
Snow Bunting	(300)		(50)	219		(20)	91		110	1	150
Pine Grosbeak		9	40		57	8			153		11
House Finch							17				
White-winged Crossbill			27	1					21		
Common Redpoll	(6)	43	65	83	60	25	282		233	166	30
Hoary Redpoll				2	4		1		2		
Pine Siskin			(3)		5						
Evening Grosbeak		13	52		2	2			84		4
House Sparrow	60		16	423			242	8	63	180	
Total Birds Count Day	180	97	365	853	252	157	712	107	949	512	335
Total Birds Count Period	499	97	429	853	252	178	712	107	955	522	335
Total Species Count Day	8	13	19	16	16	14	11	13	24	15	21
Total Species Count Period	13	13	25	16	16	16	11	13	30	21	21

Table 3-6 Species found in 9 or more localities () = seen during count period

Aves	Mayview 26 Dec 2003	Meadow Lake 26 Dec 2003	Moose Mountain 4 Jan 2004	Nipawin 27 Dec 2003	Nisbet Forest NW 14 Dec 2003	Nisbet Forest West 26 Dec 2003	Pike Lake 3 Jan 2004	Preeceville 1 Jan 2004	Prince Albert 14 Dec 2003	Prince Albert NP 19 Dec 2003	Punnichy 28 Dec 2003
Canada Goose											
Mallard											
Common Goldeneye				(3)							
Bald Eagle				1							
Northern Goshawk							1				
Golden Eagle							1				
Merlin											
Gray Partridge			5	12			13	14	13		
Ring-necked Pheasant							1				
Ruffed Grouse	6	8	4	6	3			1		2	
Sharp-tailed Grouse			12	8			118		34		46
Rock Pigeon			31	44	8	17	52	12	163		
Great Horned Owl				(1)		(1)	4		1		
Snowy Owl									1		
Great Gray Owl	1	2			2	(1)					
Downy Woodpecker	1	2	2	5	1	11	27	5	3	2	
Hairy Woodpecker		4	11	6	1	9	25	3	8	6	
Black-backed Woodpecker				2	2				1	5	
Northern Flicker							1				
Pileated Woodpecker				1	3	4	2	3	3	1	
Northern Shrike	(1)	(1)					(1)				
Gray Jay	2	7		4	4				3	13	
Blue Jay	2	4	5	8	4	15	9		4		
Black-billed Magpie		11	19	35	6	19	231	4	99	19	10
Common Raven	2	35	4	52	1	29	31	7	155	23	3
Horned Lark							1				
Black-capped Chickadee	8	32	59	38	10	40	326	12	87	52	1
Boreal Chickadee									3	16	
Red-breasted Nuthatch	3	3	1	16	2		3		4	3	
White-breasted Nuthatch		1	1	3	2	8	5	3	1	1	
Brown Creeper			1								
American Robin				2			2				
European Starling											
Bohemian Waxwing				340	121	(315)	31		2181	1	10
Cedar Waxwing											
Dark-eyed Junco				5			2	3	12		
Snow Bunting						(200)	880	20	346		84
Pine Grosbeak	8	22		83	5	43	115	38	137	11	
House Finch											
White-winged Crossbill			9								
Common Redpoll		71	167	538	20	255	845	71	759	93	75
Hoary Redpoll						30	4	3	1		
Pine Siskin	2		1	(3)	5			8		13	
Evening Grosbeak	2	8		25	4	43			55		
House Sparrow		33	82	224			799	2	348		3
Total Birds Count Day	37	244	414	1461	204	523	3530	210	4437	265	232
Total Birds Count Period	38	245	414	1469	204	1040	3532	210	4437	265	232
Total Species Count Day	11	16	17	24	19	13	27	18	29	17	8
Total Species Count Period	12	17	17	28	19	17	29	18	29	17	8



Table 3-7 Species found in 9 or more localities () = seen during count period

Aves	Qu'Appelle Dam 14 Dec 2003	Raymore 25 Dec 2003	Regina 26 Dec 2003	Rouleau 1 Jan 2004	Round Lake 20 Dec 2003	Saltcoats 27 Dec 2003	Sask. Landing PP 14 Dec 2003	Sask. R. Forks 29 Dec 2003	Saskatoon 26 Dec 2003	Shamrock 2 Jan 2004	Snowden 5 Jan 2004
Canada Goose	962		303		1				2792		
Mallard	1017		98		(12)		2		223		
Common Goldeneye	15								440		
Bald Eagle	4				2		2				
Northern Goshawk	2				1		(1)				
Golden Eagle	2				1		1				
Merlin	1								6		
Gray Partridge	17		728		(18)	6	104		59	420	13
Ring-necked Pheasant			3				9			(3)	
Ruffed Grouse			2		1	1			1		10
Sharp-tailed Grouse	115		187	50	39	66	180		130	14	
Rock Pigeon	123	5	1138	9	6	106	34	7	2803		
Great Horned Owl	2	1	8	3	(2)		5		4	2	
Snowy Owl			9	3	(1)		1			1	
Great Gray Owl								1			
Downy Woodpecker	2		16		3	4	14		38		9
Hairy Woodpecker	1	2	8		6	5	1	3	23		10
Black-backed Woodpecker	1							1	(1)		
Northern Flicker			23		1				19		
Pileated Woodpecker					(1)			3			
Northern Shrike	1		(1)			1			1		
Gray Jay								2			12
Blue Jay			1		16			4	52		23
Black-billed Magpie	96	12	124		30	15	104	16	842	2	103
Common Raven	19	7	20		26	19		12	13		308
Horned Lark	7				(2)					7	
Black-capped Chickadee	15	14	60	2	72	91	92	26	763		86
Boreal Chickadee								5			2
Red-breasted Nuthatch	1	1	50		2			3	217		10
White-breasted Nuthatch			6		8	4			3		
Brown Creeper			8				1		4		
American Robin			10		10		1	4	4		
European Starling	9		146	20			20		21		
Bohemian Waxwing	106		5		21	13	26	5	1034		
Cedar Waxwing									57		
Dark-eyed Junco			190		6	4			33		2
Snow Bunting	6	3	40	90	1	(60)			9	1050	85
Pine Grosbeak		3			26	8		82	17		201
House Finch	7	7	106						667		
White-winged Crossbill		8	25		36			8	50		
Common Redpoll	109	102	156		193	46	201	131	730		537
Hoary Redpoll					(2)				5		
Pine Siskin			31				1		2		
Evening Grosbeak								7			136
House Sparrow	896	180	2459	170	39	228	695	12	7102	157	25
Total Birds Count Day	3543	345	5994	383	550	617	1499	336	18202	1653	1593
Total Birds Count Period	3543	345	5997	383	589	678	1500	336	18205	1656	1593
Total Species Count Day	31	13	36	10	27	16	23	21	41	8	19
Total Species Count Period	31	13	39	10	35	18	24	21	44	9	19

Table 3-8 Species found in 9 or more localities    ( ) = seen during count period

Aves	Somme 5 Jan 2004	Spalding 26 Dec 2003	Spinney Hill 26 Dec 2003	Spruce Home, SW 22 Dec 2003	Squaw Rapids 4 Jan 2004	Stenen 1 Jan 2004	Stockholm 1 Jan 2004	Swift Current 3 Jan 2004	Tisdale 26 Dec 2003	Togo 4 Jan 2004	Torch River Valley 4 Jan 2004
Canada Goose					36						
Mallard								8			
Common Goldeneye					38						
Bald Eagle	(1)				7		(1)	1			
Northern Goshawk	1		2		1						2
Golden Eagle	(1)							1			
Merlin			1					1			
Gray Partridge	38	18		4	17		19	207			10
Ring-necked Pheasant								84			
Ruffed Grouse	(4)			5	1	5					5
Sharp-tailed Grouse	71		5		27		58	116		12	
Rock Pigeon	17		10				30	342			
Great Horned Owl							1	2			
Snowy Owl							1	1			
Great Gray Owl											
Downy Woodpecker	6	1	3	1	9	2		14		7	18
Hairy Woodpecker	5	2	1	2	2	2				5	15
Black-backed Woodpecker				1	2						
Northern Flicker								1			
Pileated Woodpecker	1		2			2				1	5
Northern Shrike			1								
Gray Jay	9				5	4					15
Blue Jay	13		7	4	2	4	1			6	10
Black-billed Magpie	59	3	62	4	11	4	5	78	2	2	26
Common Raven	118		6	5	48	10	4		5	50	54
Horned Lark							1	12			2
Black-capped Chickadee	65	10	27		7	15	1	9	3	50	94
Boreal Chickadee				2	4						2
Red-breasted Nuthatch					3	2		53			9
White-breasted Nuthatch	10							2	1	7	11
Brown Creeper			1		1						
American Robin								1			
European Starling					5						
Bohemian Waxwing		20	31					155			
Cedar Waxwing								1	40		
Dark-eyed Junco	(6)			1				46			6
Snow Bunting	15		16		29		200	50		20	575
Pine Grosbeak	96	5	17	16	47	25				18	79
House Finch								177			
White-winged Crossbill		(2)	3		115			59			(9)
Common Redpoll	66	24	91	20	245	40		214	8	33	71
Hoary Redpoll		(1)			4			2			15
Pine Siskin								8			
Evening Grosbeak	85			3	3	15					308
House Sparrow	55	30	105	20	57		20	2158	10	15	
Total Birds Count Day	730	113	392	88	787	130	390	3838	69	226	1334
Total Birds Count Period	742	116	392	88	787	130	391	3838	69	226	1343
Total Species Count Day	18	9	20	14	30	13	15	35	7	13	22
Total Species Count Period	22	11	20	14	30	13	16	35	7	13	23



Table 3-9 Species found in 9 or more localities () = seen during count period

Aves	Turtleford 29 Dec 2003	Turtle Lake 31 Dec 2003	Weyburn 18 Dec 2003	White Bear 28 Dec 2003	Whitewood 28 Dec 2003	Yorkton 30 Dec 2003	Totals Count Day	Totals Count Period	# of Counts Seen Count Day	# of Counts Seen Count Period
Canada Goose							7198	7198	11	11
Mallard						22	3181	3206	16	19
Common Goldeneye							691	694	9	10
Bald Eagle							90	94	21	24
Northern Goshawk					(1)		21	27	16	22
Golden Eagle				4			37	38	16	17
Merlin			(1)		(1)		15	17	9	11
Gray Partridge	13		270	32	31	22	3231	3262	51	54
Ring-necked Pheasant			4				371	375	11	13
Ruffed Grouse	1				(1)		148	164	40	46
Sharp-tailed Grouse	6	7	79	36	30	8	3420	3459	60	65
Rock Pigeon	37		150	232	29	247	7419	7433	60	61
Great Horned Owl	1		1		(1)		99	110	40	50
Snowy Owl		1	1	2		1	42	49	22	27
Great Gray Owl		1					10	12	8	10
Downy Woodpecker	1	7	2	1	10	4	437	438	77	78
Hairy Woodpecker	5	4	2		9	3	410	411	73	74
Black-backed Woodpecker	1						19	21	12	14
Northern Flicker			(1)		1		49	51	9	11
Pileated Woodpecker		1				(1)	66	74	28	35
Northern Shrike							7	16	7	16
Gray Jay							202	202	30	30
Blue Jay	3	7	1			15	516	521	60	62
Black-billed Magpie	38	4	7	75	44	22	4519	4519	92	92
Common Raven	18	15			58	113	2779	2784	77	79
Horned Lark					2		108	112	15	17
Black-capped Chickadee	37	15	2	4	147	41	4375	4375	91	91
Boreal Chickadee							139	140	17	18
Red-breasted Nuthatch			1		3	1	598	599	47	48
White-breasted Nuthatch			1		14	1	232	234	44	46
Brown Creeper							21	21	9	9
American Robin							58	61	15	18
European Starling			2	35			418	438	18	19
Bohemian Waxwing					11	80	5502	5891	34	39
Cedar Waxwing	6					57	266	318	11	16
Dark-eyed Junco	3		4		4		467	473	34	35
Snow Bunting	120		40		305		9008	9655	56	63
Pine Grosbeak	64	25				10	2446	2451	58	60
House Finch			28		46		1202	1203	13	14
White-winged Crossbill	66				(4)		850	885	27	31
Common Redpoll		30		50	384	132	14053	14059	86	87
Hoary Redpoll	3					2	159	163	26	29
Pine Siskin			5				287	293	18	20
Evening Grosbeak	2	15					1745	1745	34	34
House Sparrow	45		933	150	791	492	29325	29325	78	78
Total Birds Count Day	481	134	1533	624	1922	1274	107091			
Total Birds Count Period	481	134	1538	624	1930	1275		108495		
Total Species Count Day	23	15	19	14	20	20	90			
Total Species Count Period	23	15	23	14	25	21		94		

Table 3-1 Species found in 9 or more localities () = seen during count period

Aves	Archerwill 4 Jan 2004	Armit 3 Jan 2004	Bangor 27 Dec 2003	Beauval 21 Dec 2003	Bethune-Dilke 22 Dec 2003	Biggar 27 Dec 2003	Big River 2 Jan 2004	Birch Hills 21 Dec 2003	Brightwater Res. 30 Dec 2003	Broadview 23 Dec 2003	Bromhead 14 Dec 2003	Cabri 25 Dec 2003
Canada Goose						3						
Mallard						1			(8)			
Common Goldeneye												
Bald Eagle	1		1						(2)			
Northern Goshawk	(1)					1				1		
Golden Eagle												
Merlin						1						
Gray Partridge			32		30			40		10	233	16
Ring-necked Pheasant											180	1
Ruffed Grouse	8	8		5			(2)	6		1		
Sharp-tailed Grouse			51	16	3	56		(2)	36	75	75	
Rock Pigeon			13		23	214		47	22	70	32	88
Great Horned Owl	1		2			(1)		2	1	1	2	1
Snowy Owl	1		1					(1)			2	2
Great Gray Owl				(1)								
Downy Woodpecker	7	1	5	1		(1)	2	5	1	5		1
Hairy Woodpecker	10		7	2		1		6		1		
Black-backed Woodpecker												
Northern Flicker												
Pileated Woodpecker	3		1					(1)				
Northern Shrike	1					1						
Gray Jay	5	2		8			2					
Blue Jay	28	1		4		2	4			2		
Black-billed Magpie	27	23	28	9	4	196	1	49	88	25	3	17
Common Raven	12	92	51	81	(3)	14	6	17		1		
Horned Lark												7
Black-capped Chickadee	56	23	37	12	3	35	5	34	4	29	1	1
Boreal Chickadee	5	3		1								
Red-breasted Nuthatch	7			(1)		9	2					
White-breasted Nuthatch	3		2				1			1		
Brown Creeper												
American Robin		1				7		3		(1)		(1)
European Starling			2					28	5		18	
Bohemian Waxwing	1				(24)	425				(4)		5
Cedar Waxwing	(20)					(2)						
Dark-eyed Junco	4		5			10				4		
Snow Bunting	65	44	32		12	(2)		202	50	(15)	55	
Pine Grosbeak	98	47	6	20		1	6	(4)				
House Finch						32				10		
White-winged Crossbill	125	30				18				30		
Common Redpoll	176	189	7	21		317	13	245	129	218	31	4
Gray Redpoll	1	11				4		1			2	
Tree Siskin	6											
Evening Grosbeak	71	34		24								
House Sparrow	88	7	152		50	837		135	240	304	631	220
Total Birds Count Day	811	521	436	204	125	2189	42	821	577	801	1267	363
Total Birds Count Period	832	521	436	207	154	2195	44	829	587	821	1267	364
Total Species Count Day	27	17	20	13	7	25	10	16	11	21	14	12
Total Species Count Period	29	17	20	16	10	29	11	20	13	24	14	13

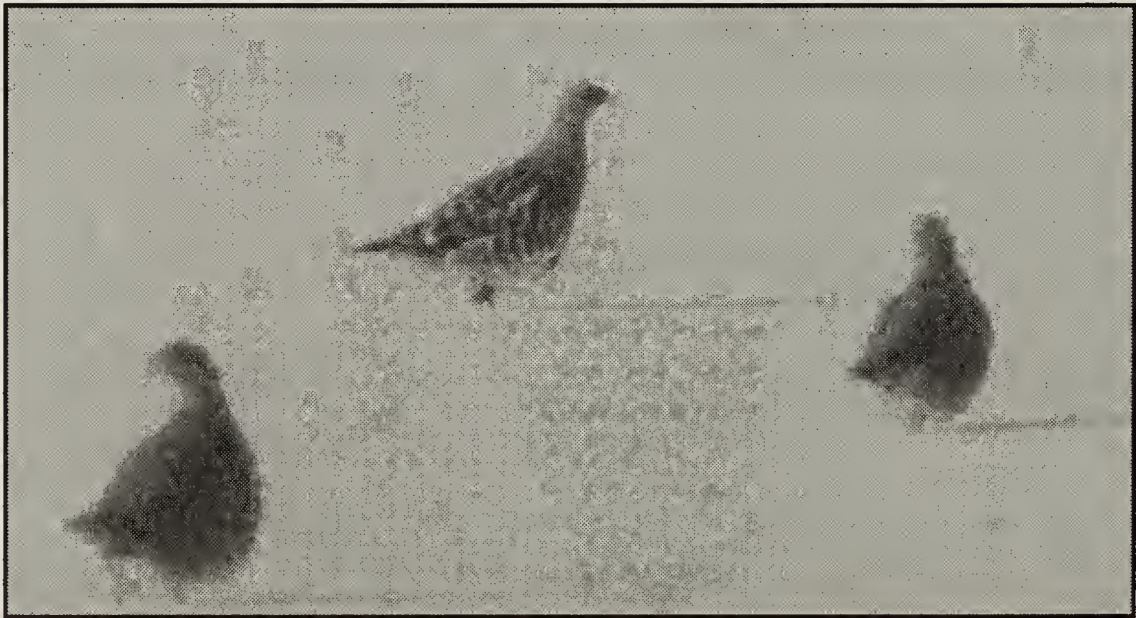


Table 4 Species found in fewer than 9 localities

Species	Locality and Number (* = Count Period)
Harris's Sparrow	Broadview (1), Craven (1), Indian Head (1), Sask. Landing PP (2), Sask. R. Forks (1), Swift Current (1), White Bear (1)
White-crowned Sparrow	Pike Lake (1), Preeceville (1), Swift Current (2)
Lapland Longspur	Stockholm (30)
Northern Cardinal	Saskatoon (1*)
Red-winged Blackbird	Fort Walsh (1), Indian Head (5), Regina (1*)
Western Meadowlark	Cypress Hills PP (1), Govenlock (1)
Rusty Blackbird	Fort Walsh (31), Regina (1), Round Lake (1)
Brewer's Blackbird	Beauval (1*), Brightwater Res. (1), Endeavour (1*), Govenlock (3)
Common Grackle	Archerwill (1), Birch Hills (1), Broadview (2), Endeavour (1), Kamsack (1), Kutawagan Lake (1), Regina (3)
Brown-headed Cowbird	Saskatoon (1*)
Purple Finch	Craven (4), Gardiner Dam (1), Good Spirit Lake (2*), Indian Head (21), Kenosee Lake (1), Round Lake (1), Saskatoon (11), Swift Current (21)
Red Crossbill	Armit (5), Fort Walsh (9), Saskatoon (1), Snowden(20), Squaw Rapids (47), Turtleford (9), Turtle Lake (1)
American Goldfinch	Clark's Crossing (1), Craven (3), Fort Qu'Appelle (9), Kenosee Lake (6), Regina(5), Whitewood(2)

Table 5 Birds not identified to species

Category	Locality and Number
Goose sp.	Estevan (150)
Duck sp.	Rouleau (35)
Raptor sp.	Craven (1)
Eagle sp.	Fort Walsh (1)
Falcon sp.	Govenlock (1)
Woodpecker sp.	Clark's Crossing (1), LaRonge North (1), Saskatoon (1)
Crossbill sp.	Fenton (8)



*Gray Partridge*

*Lorne Scott*

Table 6. New (in bold and italics) and tying high counts for individual species 2003. Count period results are in brackets.

LOCATION	2003 COUNT	PREVIOUS HIGH, LOCATION, YEAR
<b>Regina</b>	<b>728 Gray Partridge</b>	<b>532 Saskatoon 1970</b>
<b>Bromhead</b>	<b>180 Ring-necked Pheasant</b>	<b>137 Grasslands National Park 1989</b>
Indian Head	1 Swainson's Hawk	1 Webb-Swift Current 1978, Eastend-Consul 1997, Indian Head 2002
<b>Yorkton</b>	<b>1 Sandhill Crane</b>	<b>NEW SPECIES</b>
<b>Leader</b>	<b>1 Common Crane</b>	<b>NEW SPECIES</b>
Swift Current	8 Eurasian Collared-Dove	8 Moose Jaw 2001
Govenlock	1 Western Screech-Owl	1 Leader South 1998
<b>Snowden</b>	<b>308 Common Raven</b>	<b>279 Nipawin 1993</b>
<b>Saskatoon</b>	<b>217 Red-breasted Nuthatch</b>	<b>207 Saskatoon 1995</b>
Estevan	1 Hermit Thrush	1 MacDowall 1997
Pike Lake	(1) Northern Mockingbird	1 Regina 1967, 1987
Swift Current	2 White-crowned Sparrow	2 Craven 1999
<b>Saskatoon</b>	<b>667 House Finch</b>	<b>466 Saskatoon 2002</b>

Table 7. Population changes in numbers of selected species in 2003\* compared to 2002 and the average for 5 years, based on number of birds per observer. A minus sign indicates a decrease from previous years.

Species	% change from 2002	% change from 1998-2002	Species	% change from 2002	% change from 1998-2002
Canada Goose	-79	-60	Black-billed Magpie	-20	-18
Mallard	-93	-88	American Crow	46	56
Common Goldeneye	3	0	Common Raven	-8	3
Common Merganser	196	-16	Horned Lark	-95	-96
Gray Partridge	206	197	Black-capped Chickadee	-17	-4
Ring-necked Pheasant	239	148	Boreal Chickadee	-17	-17
Ruffed Grouse	80	32	Red-breasted Nuthatch	48	29
Sharp-tailed Grouse	286	216	White-breasted Nuthatch	-5	-25
Bald Eagle	-16	12	Brown Creeper	73	85
Northern Goshawk	48	33	Golden-crowned Kinglet	26	-42
Rough-legged Hawk	442	45	American Robin	10	-57
Golden Eagle	35	12	European Starling	33	-7
Merlin	-1	6	Bohemian Waxwing	-58	-49
Prairie Falcon	-38	-50	Cedar Waxwing	-56	-22
Rock Pigeon	-6	-1	American Tree Sparrow	-88	-72
Great Horned Owl	15	2	Dark-eyed Junco	20	114
Snowy Owl	-51	-42	Lapland Longspur	-99	-98
Great Gray Owl	163	-71	Snow Bunting	-48	-61
Short-eared Owl	-78	-88	Pine Grosbeak	69	82
Downy Woodpecker	-5	9	Purple Finch	-64	-39
Hairy Woodpecker	-5	10	House Finch	14	81
Black-backed Woodpecker	56	114	White-winged Crossbill	474	661
Northern Flicker	-21	6	Common Redpoll	975	61
Pileated Woodpecker	49	103	Hoary Redpoll	3819	49
Northern Shrike	-62	-58	Pine Siskin	-28	-19
Gray Jay	19	22	Evening Grosbeak	49	-2
Blue Jay	-38	-27	House Sparrow	21	31

\*As tremendous changes can occur in small sample sizes, only those species recorded on an annual average of six counts are included.

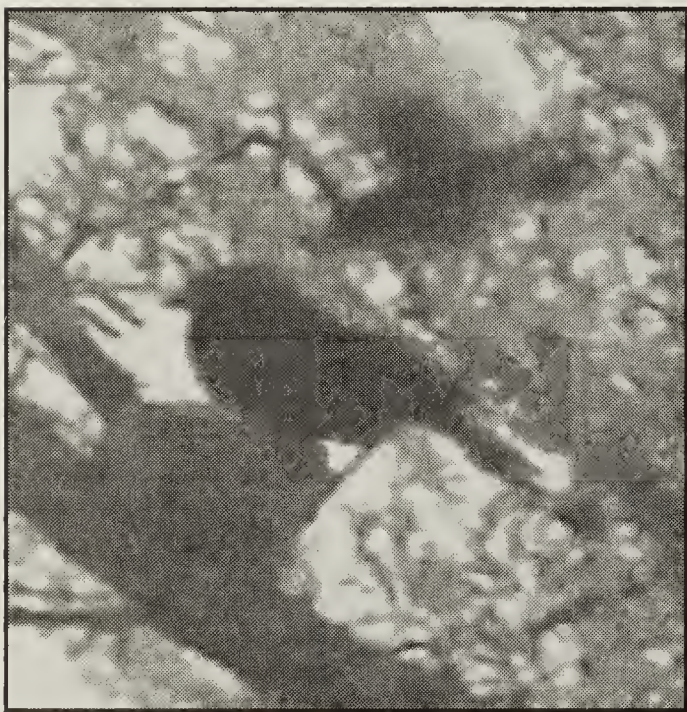


## TWO ADDITIONAL OBSERVATIONS OF EGG LAYING BY PARASITIC BROWN-HEADED COWBIRDS

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### Introduction

Three of the five species of parasitic cowbirds are known to lay their eggs around sunrise.<sup>10-12,17</sup> One of these is the Brown-headed Cowbird, which generally lays earlier than its hosts.<sup>9,12</sup> This act of parasitism by Brown-headed Cowbirds has been witnessed or video-taped, and described



*Female Brown-headed Cowbird approaching the nest of a Blue-gray Gnatcatcher (with the gnatcatcher attacking the cowbird from above), 25 June 2002, Kinney Co., Texas. The cowbird and at least one gnatcatcher arrived in the vicinity of the nest at 05:30 CST, by 5:32:31 the cowbird was approaching the nest, and laid her egg precisely at 05:33:31, 11 minutes prior to sunrise.*

*Kevin Ellison*

in the literature about 50 times, from widespread localities within the species' range: Manitoba, Missouri, Montana, North Dakota, and the Great Lakes region.<sup>1,4,10,12,15,16</sup> Eleven of these observations were at Delta Marsh, Manitoba, at four nests of the Yellow Warbler, four of the Red-winged Blackbird, two of the Baltimore Oriole, and at one nest of the Clay-colored Sparrow.<sup>10,12</sup> Here we present details of two additional acts of parasitism by Brown-headed Cowbirds at Delta Marsh: an additional record for a Yellow Warbler nest and the first description of the timing of parasitism on a Brewer's Blackbird nest.

### Observations

The parasitism events described here were observed during watches of potential host nests in 1993 and 1994, the last two years of watches that began in 1989. The Brewer's Blackbird nest was at the edge of a pasture along the southern edge of Delta Marsh near an oak woodlot; SGS witnessed the parasitism on this nest in 1993. In 1994, DGM observed the parasitism on the Yellow Warbler nest located in riparian habitat of the forested dune ridge that separates Delta Marsh and Lake Manitoba.

Following protocols described in detail elsewhere,<sup>8-10,15</sup> we watched nests to determine the time of day of laying by Brown-headed Cowbirds and their potential hosts, as well as host behaviour at their



nests. Briefly, nests were watched from blinds set up the evening before the watch was to take place, or from other concealed vantage points, from 03:30 hr (all times Central Standard Time) through at least 04:30 hr to cover the period around sunrise and the time in which parasitism by Brown-headed Cowbirds was known to occur.<sup>12</sup> The contents of each nest was recorded the evening before the watch and again before we entered the blinds in the morning, unless the female was still on the nest after roosting there overnight, in which case the nest was inspected the first time the female left in the morning. Watches extended beyond 04:30 hr, in some cases through the early afternoon, to obtain laying times for some host species.<sup>9</sup> The Brewer's Blackbird nest was watched until the female blackbird laid her own egg, after the cowbird laid its egg, whereas the Yellow Warbler nest was watched for about one hour after the cowbird's egg had been laid, but the female warbler did not lay that morning.

#### *Yellow Warbler*

Upon arrival at the blind at 03:30 hr on 6 June 1994, DGM noted that the female warbler was not on the empty nest, although a male was singing nearby. None was seen near the nest over the next 30 minutes, including at 04:00 hr when a female cowbird flew to the nest, stepped onto the rim and placed her bill into the nest. She quickly settled into the nest and began a series of rhythmic, full-body contractions as the egg was laid. During each of the 4-5 contractions, the female stretched farther forward, until with the last contraction, she pushed so far that her head was below the nest rim and essentially only her cloaca and tail were within the nest cup. This posture gave the bird the appearance of toppling forward off the nest. At this moment, the cowbird apparently laid the egg, righted her body in the nest and then flew off, all the while silent. The cowbird was on the nest for 21 seconds, arriving at 04:00:20 and leaving at 04:00:41; the egg was laid 25 minutes before official sunrise, calculated

following Scott's procedure.<sup>12</sup> Neither adult warbler was seen until 04:22 hr when the female visited the nest, peered into it for 5 seconds, and then left. Observations ceased at 05:00 hr without the warbler laying its first egg that day. The cowbird egg was removed and replaced with a model egg, but the next day the nest had been depredated.

#### *Brewer's Blackbird*

The female blackbird was not on the nest at 03:25 hr on 21 May 1993 when the watch began. The nest, on the ground, contained the same blackbird egg and cowbird egg recorded the previous evening. No blackbirds were heard or seen until 03:51 hr, when one called about 5 m from the nest. Over the next 4 minutes, two called from at least 10 m from the nest and out of sight, before they left the area. At 04:09 hr a female cowbird flew to within 6 m of the nest and landed on the ground, where it remained motionless and out of sight for more than one minute. Still out of sight, the cowbird walked toward the nest (the movement of blades of grass revealed its progress) when suddenly, it stood erect, its head visible above the grass as it looked around for several seconds. Dropping out of sight again, the female continued toward the nest for a few more seconds, but after standing erect twice more, it entered the nest at 04:12 hr and remained in the nest for 37 seconds, during which time it laid its egg (the laying bout). After laying, the cowbird walked about 10 cm from the nest and flew away, without ever vocalizing. The egg was laid 27 minutes before official sunrise.

At 04:11 hr while the cowbird moved toward the nest, five Brewer's Blackbirds landed about 5 m from the nest and at least one blackbird uttered an alarm call, the *Chaw* call.<sup>7</sup> At 04:31 hr a female blackbird approached the nest for a few seconds and, from then until 04:42 hr, visited the nest twice more before settling on it at 04:46 hr to begin the laying process. At 05:11 hr, the female left the nest and was immediately joined by a male and they flew off together.



On the nest for 25 minutes, the female laid about 20 minutes after sunrise. SGS returned to the nest at 03:25 hr the following morning, but the female flushed from it and the watch was aborted. The nest contained two cowbird eggs and one blackbird egg, one less of the latter than on the previous morning. The missing host egg, undamaged when inspected the previous morning and, hence, not likely removed by the blackbird,<sup>5</sup> may have been removed by the female cowbird on a return visit to the nest.<sup>13</sup> On 23 May, the nest contained three blackbird and three cowbird eggs, but by 25 May the contents of the nest had been depredated.

## Discussion

Brown-headed Cowbirds lay their eggs earlier and more quickly than other species of blackbirds and most other songbirds whose laying times and laying bouts have been recorded.<sup>9,12,14</sup> Of the 50 or so observations of acts of parasitism by this species of cowbird, all but two were recorded before or around sunrise.<sup>1,4,10,12,15,16</sup> The latest laying time noted by Scott in a review of laying times of Brown-headed Cowbirds was at least three hours after sunrise, at a Northern Cardinal nest in Indiana.<sup>6,12</sup> All 11 acts of parasitism published previously for Delta Marsh occurred between 19 and 44 minutes before sunrise<sup>10,15</sup> and the two observed acts of parasitism reported here, 25 and 27 minutes before sunrise, were within this range. Such consistency of laying time, in the minutes before sunrise before hosts lay, begs the question of whether this behaviour confers an advantage on Brown-headed Cowbirds as brood parasites.

Some authors have argued that by laying around sunrise, Brown-headed Cowbirds are less likely to disturb potential hosts who would be foraging before laying their own eggs and, hence, less attentive at their nests.<sup>2,12</sup> Our observations, and those of others made in the last 10 years, have confirmed for the Brown-headed Cowbird

the narrow window of laying just prior to sunrise. But observations also have shown that females of some potential host species were near their nests around sunrise, or having roosted in their nests, were in them when cowbirds arrived to lay. Tussles at some nests have ensued between the cowbird and the hosts, but parasitism generally occurred despite the hosts' aggressive behaviour.<sup>1,10,15</sup> In one study, recognition of the cowbird during laying elicited desertion of parasitized nests by Field Sparrows.<sup>1</sup> Bronzed Cowbirds and Shiny Cowbirds also lay around sunrise,<sup>11,12</sup> and laying has been surmised to occur in the parasitic Giant and Screaming cowbirds from sunrise through mid-morning,<sup>12</sup> although direct observations of acts of parasitism are needed to confirm this range of laying times. If these species lay around sunrise, too, this would be strong support for early laying being an adaptation for brood parasitism among the parasitic cowbirds. A consideration of the laying times of parasitic birds elsewhere in the world reveals a wide range of times over the day.<sup>3,9</sup> This suggests that the time of day of laying depends on the behaviour of particular hosts on and near their nests in relation to constraints on the parasites, such as distance from their roost sites to host nests, foraging and interactions with other individuals.

Rapid laying also was characteristic of parasitism at Delta Marsh, as each cowbird spent between 14 and 119 seconds on nests while laying,<sup>10,15</sup> with a mean of 45 seconds. The two cowbirds observed here spent 21 and 37 seconds on the nest laying, which were within the range of laying bouts recorded at Delta Marsh. In general, parasitic birds lay rapidly, reducing the chances the parasites will encounter aggressive hosts during laying.<sup>14</sup> Additional observations and video-tapes of acts of parasitism on many more host species at different latitudes may reveal subtle differences in laying times and also whether some or all hosts occasionally thwart parasitism attempts.

## Acknowledgements

We thank the staff of the Delta Marsh Field Station (University of Manitoba) for providing logistical support and accommodation during our work at Delta Marsh. Personnel of the Portage Country Club allowed us to watch nests on their property, including the Yellow Warbler nest at which cowbird parasitism was observed and described in this paper. Kevin Ellison provided the video frame of the cowbird in the process of parasitizing the Blue-gray Gnatcatcher's nest, and commented on the manuscript, as did Sharon Gill and Diane Neudorf. Financial support was received from Manitoba Conservation (Wildlife Branch), the Natural Sciences and Engineering Research Council of Canada (grant to SGS, scholarship to DGM) and the University of Manitoba Research Grants Program.

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"Over the snowy drifts of the saskatoon flew mountain bluebirds, with backs and wings of glittering sapphire and breasts a softer blue."

- Florence Page Jaques, *Canadian Spring*, p.65



# NORTHWARD EXTENSION OF EURASIAN COLLARED-DOVE IN SASKATCHEWAN

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The Eurasian Collared-Dove was first released on this side of the Atlantic on New Providence island, in the Bahamas, in the mid-1970s. It spread with unprecedented speed across the North American continent, facilitated by the availability of bird seed at backyard feeders.<sup>11</sup> It resides almost exclusively near human habitations, making it readily observable by backyard birders.

Until recently, this species was not shown in standard field guides, and since the Ringed Turtle-Dove has a similar black "collar" (in both species, the "collar" line is less prominent in young birds), initial sightings in Saskatchewan were first assumed to be escaped domesticated Turtle-Doves (see note at end of article). The Eurasian Collared-Dove is larger than the Ringed Turtle-Dove, with gray rather than white vent-feathers and darker wing tips. The Collared-Dove has a three-note call, rather than the two-note call of the Turtle-Dove.

## First Saskatchewan records

In retrospect, it seems probable that the "Ringed Turtle-Dove" sighted in the backyard at 301 Second Street, Langham, from about June 10 to 29, 1998, moving between there and Dieter Martin's greenhouse, was Saskatchewan's first Eurasian Collared-Dove. The location of this sighting was reported on the Saskatoon Rare Bird Alert. Also in 1998, a pair of Collared-Doves was seen by Al Smith at Last Mountain Regional Park west of Govan on 24 August and 5 October.<sup>12</sup>

In 1999, there were three sightings in Saskatchewan. In Weyburn, in April,<sup>1</sup> John Whitell saw a pair of unusual doves which were not positively identified as Eurasian Collared-Doves until November 18. In Regina, a pair started to frequent the feeding station of Audrey and Ian Traquair on September 30, where conclusive photographs were obtained. The third sighting was by Paul Geraghty, and Don and Lyn Robertson, at Avonlea on November 6. All five birds stayed through early winter, with the Weyburn and Regina pair representing a new Christmas Bird Count (CBC) species for Saskatchewan.<sup>8</sup>

Eurasian Collared-Dove sightings on CBCs have occurred each year since 1999: in 2000, one bird at Regina and one in count period at Moose Jaw; in 2001, eight birds in Moose Jaw and one seen during count period in Grasslands National Park; in 2002, four in Swift Current and one at Eastend; in 2003, eight at Swift Current.<sup>9, 10, 13, 14</sup> Clearly, where present, this is a year-round species.

## Breeding records

In the village of Mortlach, which has become the Collared-Dove capital of Saskatchewan, the first bird seen established residence in the yard of Don and Mary Flack on June 4, 2001, and a pair was seen copulating there in July.<sup>2</sup> Numbers increased to four birds by late July and seven on October 7. Mary Flack titled this the "Eurasian invasion".<sup>7</sup>



On June 25, 2002, Bob Luterbach found a nest containing a squab, about 8 m above ground in a spruce in Ed Jaeger's yard, two blocks west of the Flack home. This was the first confirmed breeding record for Saskatchewan. Ed had suspected the presence of the nest, but the adult was immobile on the nest and blended into the grey sky. During a thunderstorm on June 30, the flimsy nest blew out of the tree and an almost-fledged nestling perished.<sup>3</sup> On September 30, two adults were seen feeding a late fledging juvenile, presumably the result of a second nesting.<sup>4</sup> Although they lay only two eggs per clutch, Collared-Doves often make two or three (up to six in Europe) nest attempts each year. In Mortlach, the nests inspected were made of grass. Ed feeds the doves year-round, chiefly black oil sunflower seeds on the ground, and provides open water in the form of an electric heater in a dog dish.

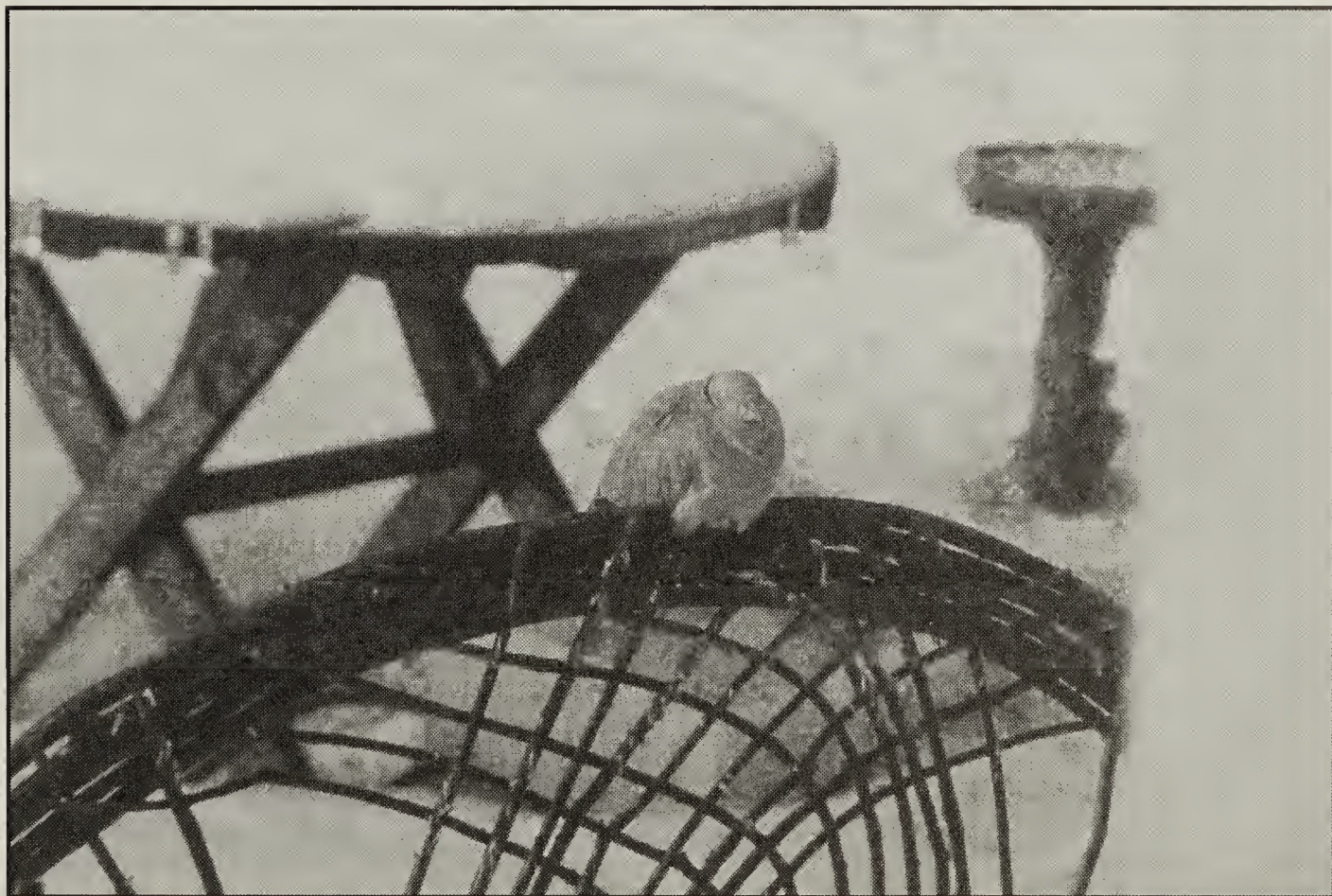
In the spring of 2003, there were eight doves in Mortlach. One was killed by a cat. That summer, there were three nests in the village. Two nests were found in July, about

9 m above ground, in the dense top branches of adjacent spruce trees, 3 m apart, in Ed Jaeger's yard. One of the nests was in the tree that had the nest the previous year. The third nest was in a tall spruce in a deserted yard, halfway between Flack's and Jaeger's. By October 30, 13 Collared-Doves were present in Mortlach.

### **New Localities**

There were sightings in several new locations in 2003. On May 18, Daniel Sawatzky saw a bird at the eastern edge of Swift Current carrying what looked like a fecal sac, possible evidence of breeding.<sup>5</sup> A single bird appeared in the yard of Lorne Rowell in Fort Qu'Appelle about 10 September (Lorne Rowell, pers. comm.) and remained there until early November.

In Laird, on a cold, stormy spring day, May 3, 2003, a pair of Collared-Doves appeared on the ground, eating corn and sunflower seeds, at the home of Alice and Arly Nickel. One of these may have been the bird seen over Christmas and for most of the winter at the Gary and Pearl Bergen



*Figure 1. Eurasian Collared-Dove near Laird, SK*

*Pearl Bergen*



farm, 1.6 km north and 4 km west of Laird (Figure 1). It ate bird seed from a bag on the Bergen picnic table.

The Laird pair soon built a nest across the street, 7.3 m above ground in the crotch of an American Elm. Incubation (normally 15 days) and brooding (normally for eight days) was continuous from May 13 until June 4. The single, half-grown young was banded on June 7 by CSH, the first banding of this species in Saskatchewan.

The pair then moved back across the street, to nest 3.6 m above ground in a Manchurian Elm in the Nickel yard. The second nest contained two eggs on July 2 and two tiny young on July 7. The young, estimated to be five days old, were too small to band on July 10. On July 14, after a wind and rain storm, one young was dead in the nest and the other was missing. The adult pair continued to visit the Nickel feeding tray almost every day through the winter, eating cracked corn, cracked wheat, and sunflower seeds, and surviving - 46° C temperatures.

The first Eurasian Collared-Dove in the Saskatoon Bird Area was seen on June 30 by fifteen observers during a Saskatoon Nature Society excursion to Blackstrap Lake.<sup>5</sup> On July 17, Margaret Madsen reported a pair of Collared-Doves flying to and from the top of a large spruce in a residential area of Delisle. David Miller climbed up to the nest, 11.6 m above ground. Although it was empty, with no sign of young, this nest is the first presumptive breeding record for the Saskatoon Bird Area.

The short tarsus of the Collared Dove necessitates banding with “shorter” bands. CSH has a supply and would appreciate hearing of additional nests next year.

Note: Ringed Turtle-Doves, although they carry the scientific name, *Streptopelia risoria*, are not a full species but a domestic-bred variant of the African Turtle-Dove,

*Streptopelia roseogrisea*. The name “Ringed Turtle-Dove,” and the scientific name, were applied in 1916 by Robert Ridgway to feral populations of aviary birds descended from African Turtle-Doves and living on several Caribbean Islands.<sup>15</sup>

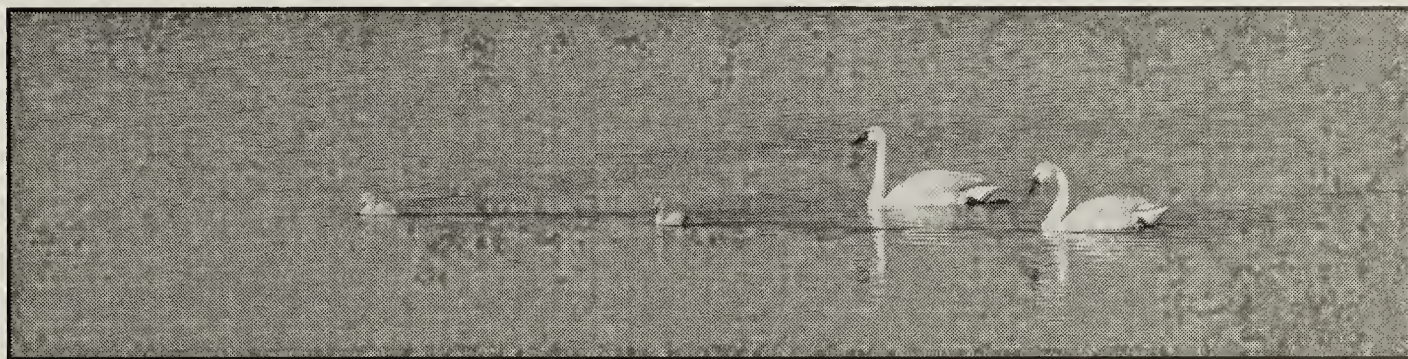
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# A SUMMER OF SWANS

CAROL BLENKIN, 801 5th Avenue North, Saskatoon, SK S7K 2N7



*Figure 1. Tundra Swan family east of Saskatoon, June 2003*

*George Tosh*

On Mother's Day, May 11, 2003, a cool, dull day, I discovered a swan nesting on an island in a fresh water pond beside the Patience Lake potash mine 10 km east of Saskatoon. Doing yeoman work, another swan, presumably the cob, was running on black flipper-like feet after Canada Geese which were landing on the island, before returning to add nesting material to his mate's nest. It was a study in contrast: she, serene; he, frantic.

I enlisted the help of local bird watchers Michael Williams and Stan Shadick to determine whether the swans were Trumpeter or Tundra Swans. Trumpeters have nested in two sites in Saskatchewan: Cypress Hills and Greenwater Lake.<sup>1</sup> Tundras, which usually nest approximately 1500 km north of this area, have nested at one location in Saskatchewan: Stony Lake, 90 km north of North Battleford from 1973-1980.<sup>1,3</sup> Careful observation revealed yellow



*Figure 2. Location of the swan nesting island in relation to the potash mine*

*George Tosh*



♂ Blackpoll Vbler

+20C Huffed hopping about

crab  
apples

frequent

pecking

under twigs

& swinging)

hanging

under

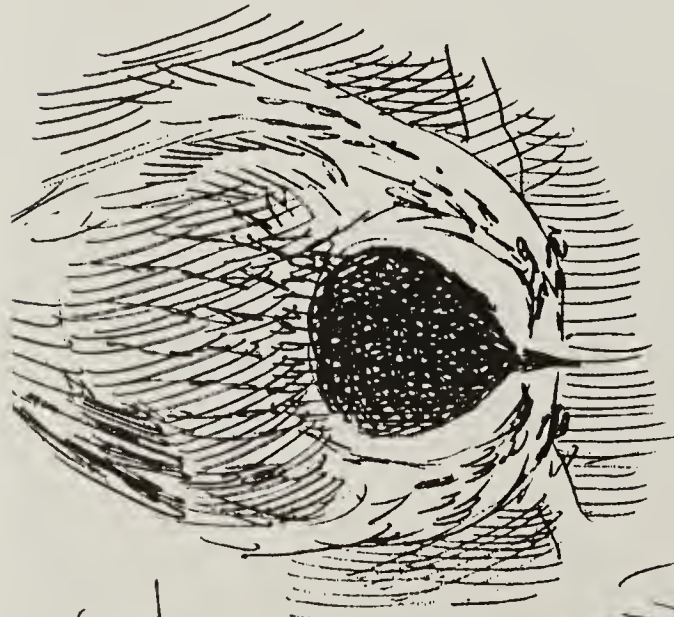
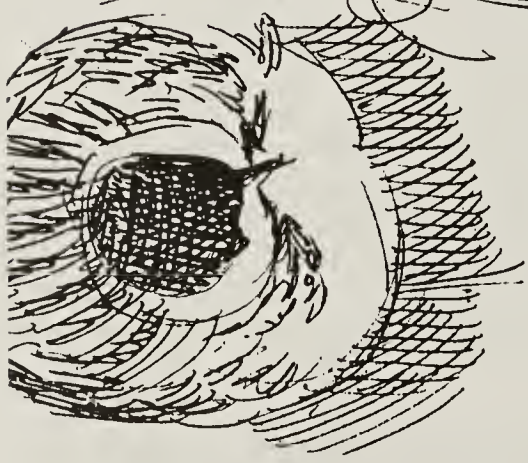
like chickadee

surprisingly yellow  
leg

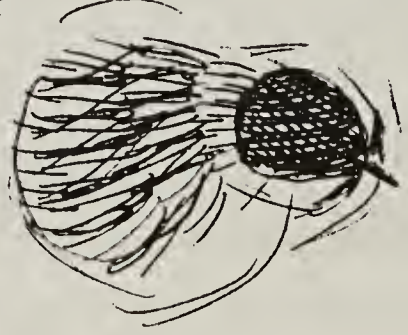
looked white to

tail tip under

gray, blade  
a white brown wire



May 11 99









lores which confirmed that they were Tundra Swans, and many of us were able to observe, for a first time, a summer season of these magnificent birds nesting in a natural, albeit human-altered, environment (Figure 2).

The nest pond is on mine property immediately west of the tailings pile and is bordered by Provincial Highway 316. The water level in the 4 ha pond is maintained with fresh water from the South Saskatchewan River piped in, in stages, through a string of ponds as part of a soil reclamation project. The swans were well situated for the literally hundreds of visits they received. Parking along the rather steep shoulder of the road and using the vehicle as a blind was the ideal way to observe them. Large trucks regularly passed by, and the swans and over twenty other species of birds, seemed to ignore the vehicles on one side and mine equipment on the other.

At 11 am on June 13th, 34 days after the swans were first seen on the nest and just before Father's Day, Hilda and Bruce Noton and I were delighted to see two cygnets swimming with one of the adult swans. The other adult remained on the nest. Earlier that morning, Sue Taylor, who ran by the pond

almost daily, had observed only one cygnet indicating that the second must have hatched just a few hours after the first. Tundra Swans lay 4-5 eggs and they hatch in 35-40 days.<sup>2</sup> One adult continued to sit on the nest for 2-3 more days but no more young hatched. It was impossible to see what the nest bowl contained when the swan moved off briefly.

When first noted, the young were approximately half the size of the Canvasbacks and Gadwalls that floated beside them and shared the vegetation stirred up by the up-ended, paddling adult swans. The cygnets were gray overall, on both down and bills. Their feet were pinkish, dramatically different from the adults' large, very black feet visible during food forays on the bottom (see back cover of the June 2003 *Blue Jay*). The adult swan swimming with the cygnets cooed softly and called to them. At 7 pm on their first day on earth, the siblings engaged in a slight tussle: on the island they faced off and began darting their heads at each other and neck wrestling. It was the only time I saw them do this.

At 6 pm that day the adult still on the nest waddled to the water's edge and began pulling up greens and moving sticks. After a



*Figure 3. Tundra Swans co-habiting the nest island with Canada Geese*

*George Tosh*



short swim behind the island it climbed ashore followed by an irate avocet which repeatedly attacked the retreating swan from behind. The swan did not react but blithely climbed back into the nest.

When the cygnets were a week old, and tipping and stirring up food, the Canada Goose which had been allowed to nest near the swans on the island (Figure 3) was forced to abandon her nest. About eight exposed goose eggs disappeared over the next few days. Two or three avocets (Figure 4) were also nesting on the small island but no one reported seeing any avocet young. The swans not only blocked geese from the island, they tried to chase them off the pond. In one instance, the swan, gliding around the edge of the pond, ran out of the water with wings spread wide, at a point just below seven sleeping geese. It startled them and chased two of them as they marched along the potash mine railway track leading away from the mine. The pursued and pursuer walked along the track at a steady pace, the geese crooking their necks back, keeping an eye on the advancing swan until it turned and went back to the water. On a subsequent visit, however, I observed a Canada Goose walk slowly over to the abandoned swan's nest

on the island, tentatively step up into it and look around expectantly.

For the first month the cygnets remained close to one of the adults on the pond or on the island while the other adult swam elsewhere in the same pond, in the channel to the east, or in the larger pond to the north. The adults were rarely observed in flight. At a month old, the cygnets were about half the size of their parents and remained quite gray with a black border on their bills.

While eating some red Samphire (*Salicornia rubra*), one of the cygnets spread its wings which were so undeveloped that they looked like plucked and floured chicken wings! This was on July 14 and was the first time I observed the cygnets not under the supervision of one or both parents. They were at their usual place, near the nest site, with their heads periscoping up through the weeds and moving from side to side. One was opening and closing its bill, as if calling the parents. Within minutes both adult swans appeared. It was the last day I saw all four swans.

On August 8th, George Tosh, who had been observing and photographing the family



**Figure 4. Tundra Swans and American Avocets on the swan nest island**

**George Tosh**



regularly, reported one of the cygnets missing. We suspect that a coyote was involved as one was seen near the pond by Frank Roy, and Darlene and Jim Hay, on a previous visit. Following the loss of one cygnet, both parents usually kept a close watch on the remaining one. The cygnet was turning white on its breast while retaining a gray colour overall.

On September 21, when the cygnet was 100 days old, I observed the three swans in a slough approximately 200 m north of the pond containing the nest. I had never seen the cygnet away from the nest pond before. The family swam to a rock and, after preening (Figure 5), all three flew in a wide circle and landed on the water near the opposite shore. While the adults trudged up the bank, the cygnet flew in a graceful arc over them and landed slightly ahead of the adults, seeming to revel in his new found skill. These were the first and only observed flights of the cygnet and the last time the family was seen at the potash mine.

On October 16, two adult swans and a cygnet, that looked like the potash mine swans, flew in and joined two adults on a slough south of Bradwell. Five days later 18 migrating swans were on the same slough when this family group flew in with loud woo-hooing from both parties (Figure 6). Could they have been discussing the relative rights of migrants and residents to the rich vegetation of a prairie pond? One of the newly-arrived adults swam over to one of those on the slough and they had a no-contact neck wrestle.

Were the nesting pair of Tundra Swans arctic birds that opted to remain on the prairies or were one or both birds part of the group of resident Tundra Swans at the Forestry Farm Park and Saskatoon Zoo in Saskatoon? The park's resident pair had produced two cygnets circa 1997 which migrated in the fall (Greg Fenty, pers. comm.). In 1998, a pair of feral adults spent the summer on the marsh in the park but produced no young. In 1999, 2000 and 2001



*Figure 5. Swans preening a few seconds before take-off, 21 September 2003*

*Carol Blenkin*





**Figure 6. Three swans in flight, Bradwell, 22 October 2003**

**Carol Blenkin**

two swans again spent the summer in the park and, each year, they produced offspring which did not survive. In 2002, only one swan was at the park but two Tundra Swans were seen that summer at the Northeast swale, three km NE of the Foresrty Farm Park (Frank Roy, pers. comm). Also in 2002, Sue Taylor, Hilda and Bruce Noton, and James Couch, General Superintendent of the Patience Lake Division of the Potash Corporation of Saskatchewan, observed two adults throughout the summer on the pond beside the Patience Lake potash mine. In 2003, two swans returned to the Zoo and produced eggs but no young. None of the observed swans was banded.

The Tundra Swans made a strong impression on observers in 2003. James Couch said that he and the 67 employees on the mine site were very excited when the swans returned in 2003 and nested successfully. They brought their children and grandchildren out to see them. The swans were a regular topic of conversation with the dog retriever club members who saw them as they made a daily drive to their training grounds. CFQC TV produced a story that aired on the provincial newscast and the Star Phoenix ran their picture.

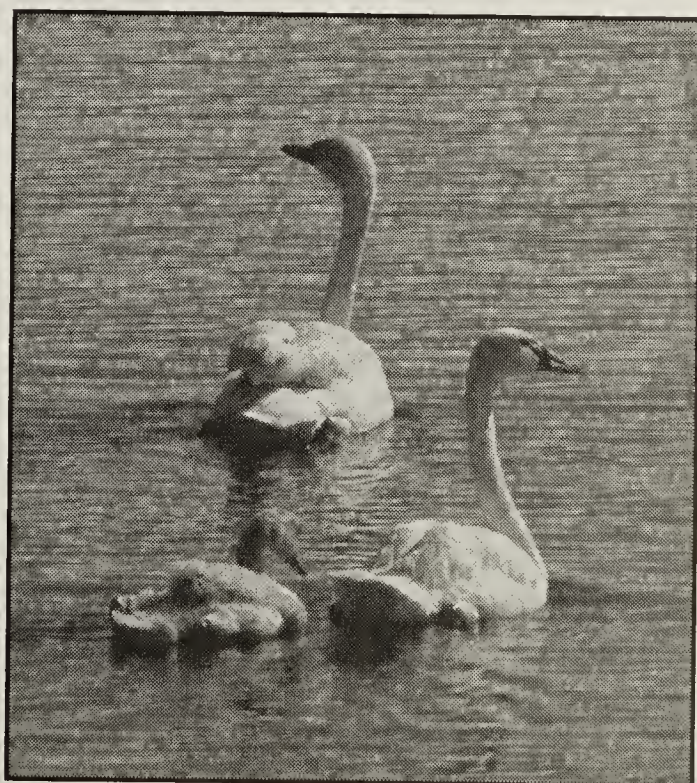
Will they return? The average spring arrival date for migrating Tundra Swans to

reach the Saskatoon area is April 11. There will be scores of swan converts watching and hoping that a breeding pair will call the prairies home again this summer.

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**Tundra Swan family east of Saskatoon**

**George Tosh**



## NATURAL HISTORY FROM A GRANDFATHER'S KITCHEN TABLE

FRANK SWITZER, 1301 Shannon Road, Regina, SK S4S 5K9

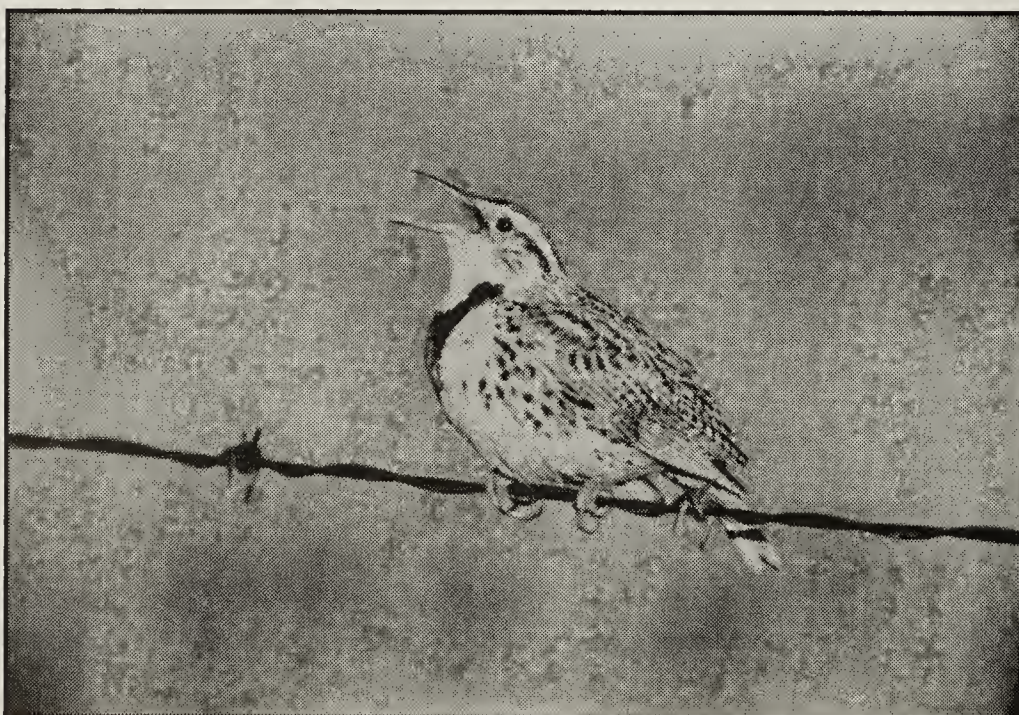
My grandfather, Tobias Switzer, entertained his family at Sunday dinner by telling stories about his life. Tobias was born in Pefferlaw, Ontario, on September 9, 1861. He learned the shoemaking trade from his father but developed an urge to head west, and in the spring of 1883, at the age of 22, he set out on the Canadian Pacific Railway, then being built. His destination was the York Colonization Company homestead lands in the vicinity of present-day Yorkton. One way to get there was to leave the CPR at Fort Ellice, Manitoba and travel into the Northwest Territories by Red River cart along a trail that went through Yorkton to the northwest. Not wanting to endure the screeching and groaning of the wooden wheel hubs on dry wooden axles, Tobias put his supplies on Red River carts and he walked from Whitewood. In his backpack, he carried only the necessities: bedding, supplies and

extra clothing, pup tent and a pan for cooking and boiling water. He also carried an axe and a 12 gauge shotgun. The walk would be sixty some miles north to claim his effects and then he had to get out to his homestead, which was located southwest of the present day community of Rhein on the SE 1/4 section 12, township. 27, range 3, W 2.

Several of Tobias' stories related to the grassland through which he walked. South of the Qu'Appelle, though much of the grass was flattened by the previous winter's snow, he talked about knee-to-thigh high grass. There were no trees or shrubs, except some 'wolf willow' as he called it, and a few sloughs with some willows on the margins. The only wooded areas of consequence were on north-facing slopes of the Qu'Appelle River Valley. Grasses on the valley floor were waist-to-chest high.

Some larger trees grew along the river banks, and the south-facing valley slopes were covered with very short grass. Thick shrubs grew in the coulee bottoms as well. North of the valley, grassland stretched as far as the eye could see.

Ducks arose from sloughs so numerous that Tobias decided that to walk around all



*Western Meadowlark*

*Fred Lahrman*



of them would take too much time. Coating his boots with an extra heavy layer of boot grease, he walked through as many as he could.

We know that Tobias was reasonably well acquainted with birds because he had done a little taxidermy while in Ontario. He had a small glass fronted display case containing mounts of a meadowlark, robin, Yellow-shafted Flicker, Common Grackle, Red-winged Blackbird, Rose-breasted Grosbeak, Willet, Franklin's Gull, Herring Gull, Red-tailed Hawk, Ruby-throated Hummingbird, Bobolink, Great Horned Owl, bobwhite, woodcock, Upland Sandpiper, coot, Horned Grebe and an unnamed sparrow.

Two species of birds that he saw along the way were meadowlarks and Sharp-tailed Grouse (called "chickens"). He recalls that on the way to the valley he saw meadowlarks but heard no song. It wasn't until he saw a meadowlark sing as he was putting his clothes back on after swimming and rafting his effects across the Qu'Appelle River that he connected the melodious bird call he had previously heard with the meadowlark. Being from Ontario, he was acquainted with the two note whistle of the eastern race, and when he connected the call with the bird, he was quite enthralled with the difference.

As the walk progressed north of the valley, more sloughs were encountered and the height of the grasses increased. Most of the grasses were waist high, some chest high and some, he said, were so tall that he had

to drop his pack and jump up and down to see over the grass to get a bearing. Pushing through these meant that ample warning was given to ducks on sloughs and a deliberate stalk was needed to bag a few for meals. Tall grass also made it difficult to find a place to pitch his tent; not only was it hard to find a safe place for a fire for cooking and boiling water but also, should a grass fire approach from somewhere, the chances of getting to a slough were diminished.

Late one afternoon, he chanced upon a bit of a hill where the grass was very short and well trampled down: an ideal spot for an overnight stay. The next morning, the story went, it sounded like people dancing all around the tent. Gingerly the tent flap was opened and there, all around, were



*Sharp-tailed Grouse*

*Jim Sutherland*

dancing chickens! The story continued with a recounting of shooting enough chicken for breakfast, dinner and supper that day. It would appear that this change in diet was most welcome after eating duck. As a matter of fact, there is not even a recollection of duck, tame or wild, that was ever served at the Tobias Switzer dinner table.

Interesting observations can be made today on a similar trip from Whitewood to Yorkton. To approximate the 1883 route,



drive along Highway 9 north to Stockholm, take municipal grid roads to Bangor, then work your way north and west to the east side of the Leech and Crescent Lakes and to Highway 9 into Yorkton. In spite of extensive cultivation, the country appears quite wooded. This area is more heavily wooded than it was back in the 1800s. The first settlers broke sod with a plow, lived in sod houses and had to import logs for roof rafters. The second wave of land breaking involved cutting bush, with the back-breaking task of picking roots. When the railroad became operational, sparks from CPR steam locomotives often set off grass fires that swept across some of these wet meadows. This continued up until the change from steam engines to diesel. The great sweep of the prairie fire has been extinguished by road and cultivated field, and the absence of fire has allowed trees and shrubs to grow.

This change in habitat from prairie to wood has profoundly changed the make up of wildlife populations. Shade-tolerant plant species became established in the poplar bluffs as the prairie grasses retreated. Grassland bird populations diminished and

aspen grove species extended their range. The make-up of mammal species also changed. The buffalo were gone by the time of homesteading. Now, White-tailed Deer, that had inhabited the more wooded elevations and the wooded valley complex of the Qu'Appelle, are the common large wild ungulate. Most of the grassland small mammals are still around. However, woodland species have extended their range. Two recent examples are the White-footed Mouse and Raccoon.

It is now rather interesting when habitat conservation is undertaken. What is being conserved? Is it the small remnants of native grassland still existing in uncultivated places? Is it the wooded places that have come into existence because fire ceased to play a role in the ecosystem? Are we trying to conserve the memories of our youth? It will never be the same as when my grandfather came to homestead. Changes from 1883 to 2003 are profound.

Are there any more oral or written family histories for this time frame of natural history?



*Alfred Langston plowing on his homestead near Plunkett, SK in 1907*

*Saskatchewan Archives Board RA-8207-2*



## ‘PILLORIED’ MOOSE IN PRINCE ALBERT NATIONAL PARK, SK

ELISABETTA TOSONI, Via Rubicone 16, Rome, Italy, 00198

Throughout the winter of 2002 -2003, Gudrum Pflueger and I monitored by ground tracking the movements of a pack of Grey Wolves in Prince Albert National Park. This pack has a core area that includes Waskesiu Lake in the southern Boreal Plains ecozone and is referred to as the ‘Waskesiu Pack.’

The pack consists of 10 or 11 animals. We found that it routinely splits into two groups, one consisting of three animals and the other of seven or eight. These two units often pursued and killed prey independently, however, we also found that they coalesced on occasion. Tracks left on snow allowed us to assess the wolves’ hunting strategies. These wolves often chased and killed deer and elk on the lake’s frozen surface.

At 5:00 PM on March 18, 2003, I was conducting a survey of wolf tracks and scats along the shore of Waskesiu Lake near the Waskesiu marina. I was surprised to spot three members of the pack feeding on a carcass of a white-tailed deer on the ice near the marina. I observed the wolves for another half hour until darkness. Individual wolves were alternately resting, stretching their legs, or playing with other pack members. These could be considered normal behaviours for a wolf pack.

At 7:00 PM that evening, other wolves, which I suspected were the remaining eight members of the pack, started howling from the direction of South Bay on Waskesiu

Lake. Howling is an important means of long-range communication among wolves. The three wolves at the Marina immediately stood up and howled back. The howling session went on for 20 minutes. Then, there was absolute silence again. This was an amazing experience for me!

Early the next morning, I visited South Bay with Nahanni, my hairy, four-legged research partner, a domestic canid. There, I found tracks in the snow of the three wolves that I’d seen the evening before. They had crossed the Narrows Road about 100 m from its junction with Mud Creek Trail. The tracks led me to the lake where I noticed the tracks of the remaining eight wolves.

I did not want to disturb the animals so I decided to backtrack on the trail of the eight wolves. Their trail brought me north along the Narrows Road. The tracks showed that the pack frequently split and rejoined as they traveled along the roadway, and that individual wolves often stopped near rocks, piles of snow and trees, sniffing and leaving urine and scat marks.

The tracks continued along the Narrows Road for 5 km, then left the road and went into the forest where all the wolf tracks aligned to follow a single trail. This is well-known behaviour that allows the pack to save energy by using one individual to break trail through snow. After 500 m, Nahanni stopped and started to whimper. There was a raven flying overhead and I smelled blood, wolf urine and scat. The wolf trail split



several times and it was impossible to follow one wolf's track without intercepting the tracks of another.

Finally, I saw the carcass. A young, male moose had gotten wedged at its shoulders between two small spruce trees and was effectively pilloried. There are several alternative explanations for the situation. The moose may have gotten stuck accidentally and either starved to death or was killed by wolves that found it stuck. Or perhaps the moose had, in the heat of the chase by wolves, tried to pass between two trees and became physically stuck as it tried to move ahead or was so disoriented that backing-up was not considered. Whatever the circumstances, the 'geometry' of this kill, as a freak occurrence, is fascinating. (see Figure 1).

Based on the labyrinth of tracks, the fact that the carcass had been heavily consumed,

and the forty wolf scats which I collected for dietary and genetic analysis, I speculate that the wolves spent at least two days at this site.

That same evening, I stopped again near the lake shore and waited, silent and motionless until dark. At 7:00 PM, the two groups of wolves started howling, each calling and answering the other. The wolves were only one km from where I had found the pilloried moose. Breathless, I listened for an hour and waited until silence.

### Acknowledgements

Thanks to Bradley Muir for his help in preparing, editing and submitting this article, and to Gregg Rutten for his photograph. This work is part of Erin Urton's study of the dietary and genetic variation in Grey Wolves through the University of Saskatchewan.



*Figure 1: View of left side of carcass. 1. skull indicating left eye, 2. left scapula (shoulder blade), 3. frozen gut pile unconsumed by scavengers*

*Gregg Rutten*



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# AMPHIBIANS

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## NORTHERN LEOPARD FROGS IN A GOLF COURSE WATER HAZARD

MARTIN BAILEY, 102 1833 Coteau Avenue, Weyburn, SK. E-mail: [cmdbb@sasktel.net](mailto:cmdbb@sasktel.net)

The Weyburn Golf Course ninth hole is a challenge. You must loft your ball over a deep pond fringed on both sides with cattails. Farther back from the water, Water Smartweed (*Polygonum amphibium*) and tall grasses grow before you reach the manicured greens. Unbeknownst to the majority of golfers, even those whose golf balls ended up in the water, the pond hosted an estimated 600 to 800 Northern Leopard Frogs on July 21, 2003.

The Northern Leopard Frog (*Rana pipiens*) is characterized by “conspicuous

dark dorsal spots bordered by light coloured rings...and prominent light-coloured dorsolateral folds... Adults range from 50 to 100 mm in length.”<sup>5</sup> The frogs at the ninth hole were, on average, 45 mm in size from the tip of their snouts to their vents on July 21. This mass of leopard frogs was probably sub-adults, for young, newly transformed from the tadpole stage, range in size from 24 to 26 mm.<sup>4</sup>

The Committee on the Status of Endangered Wildlife in Canada classifies the prairie population of the Northern Leopard



*Northern Leopard Frogs*

*George Toshn*



Frog as a species of Special Concern, i.e. a species that is particularly sensitive to human activities or natural events. While it is not in danger of being extirpated in the Prairies Provinces, its numbers have certainly gone down over the years. In Saskatchewan its status is “secure”: populations are widespread but isolated.<sup>5</sup>

Every spring in Weyburn, we have heard the cacophony of Boreal Chorus Frogs but rarely the “low guttural snore” of the Northern Leopard Frog.<sup>1</sup> Irruptions of these frogs do happen (Jim Duncan, pers. comm.) and this sudden profusion of leopard frogs where they have not been seen in recent memory is not unique. The flooding in spring 2003 of “the rough” around the ninth hole created a shallow temporary pond that lacked fish which could have preyed upon the developing frogs. This flooded area with the nearby cattails which provided anchors for egg masses, created an ideal breeding site for Northern Leopard Frogs.<sup>2,3,5</sup>

Weyburn Golf Course, built in 1981, covers 2 square km of land. It sits between Rinfret Brook, which rises in the Tatagwa Marsh southwest of Weyburn, and the Souris River, which begins between Worcester and Talmage, and flows northwest before doubling back through Weyburn and ambling on to Estevan. The natural flow of water through the golf course is from Rinfret Brook to the Souris River. However, because of the culverts, sluice gates, and the dictates of the Saskatchewan Water Authority, the flow of water from Rinfret Brook through the golf course to the Souris River does not always occur. Water from Rinfret Brook can, and does, pass by the golf course’s southern border on its way to the Souris without coming into the Golf Course. On the other hand, water from an arm of the Souris River sometimes overflows the sluice gate at the ninth hole water hazard situated at the northern extremity of the golf course.

When the frogs were first noticed on July 15, the dominant water plant of the ninth hole water hazard was Star Duckweed (*Lemna trisulca*). The frogs were the green morph of the Northern Leopard Frog and would easily go unnoticed as they sat in the pale green duckweed. Coon’s-tail (*Ceratophyllum demersum*), another water plant, was also evident in the pond at the same time but was overrun by Star Duckweed as summer went on.

The water hazard is separated from an adjacent water body by a causeway with a culvert positioned at least two metres above the bottom of the pond. The culvert was above the waterline in July 2003.

The adjacent second body of water snakes the length of the golf course. Its east bank is steep and no frogs were seen in this water body except near the causeway where cattails and pondweed (*Potamogeton* sp.) grow. In the pondweed patch, a smaller number (less than 100) 45mm-long Northern Leopard Frogs were found on July 15, the same day that frogs were first seen in the Star Duckweed on the other side of the causeway.

Great Bulrush (*Scirpus validus*) is common along the shorelines of some of the golf course ponds. No frogs were found amongst this large and imposing marsh plant. The bulrush dominated its immediate environment, and the mud between each great bulrush stalk was an empty space. This is in keeping with observations in British Columbia where Canary Grass (*Phalaris arundinacea*) formed a monoculture that affected frog movement and foraging.<sup>2</sup> Other water plants noted in the golf course ponds at the end of July were northern water milfoil, (*Myriophyllum exalbescens*) and Richardson's Pondweed, (*Potamogeton richardsonii*).

A number of factors made Weyburn’s golf course a good habitat for frogs. Deep



permanent ponds and inlets, and shallow enclosed water bodies for overwintering, breeding and development are all within a kilometre of each other, in or surrounding the golf course.<sup>3</sup> The human traffic near the water bodies, while not in conflict with the frogs, keeps away avian predators such as Great Blue Heron and Belted Kingfisher. Though herbicides and fertilizers are used on the golf course's greens, they are only applied after the ground is aerated. So, in the case of the ninth hole green, situated a hundred yards from the water hazard, the likelihood of damaging levels of herbicides or fertilizers seeping down to where the frogs were located appears to be low.

Acknowledgements

Without John Whitell's initial observations of the Northern Leopard

Frogs, this article would not have been possible. After his initial discovery, he and I then conducted this survey together.

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*Canada Goose Goslings*

*Lorne Scott*

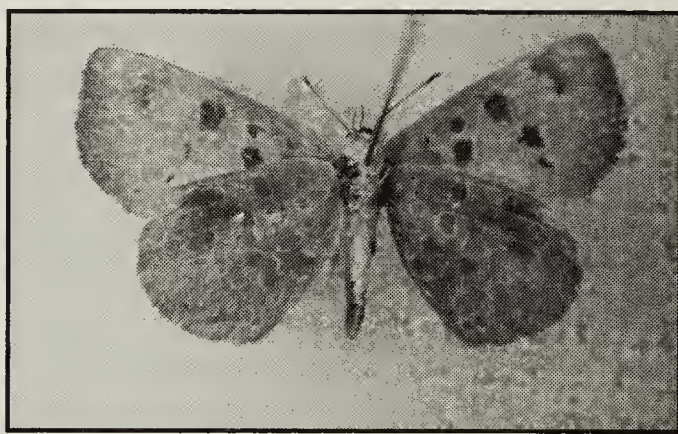
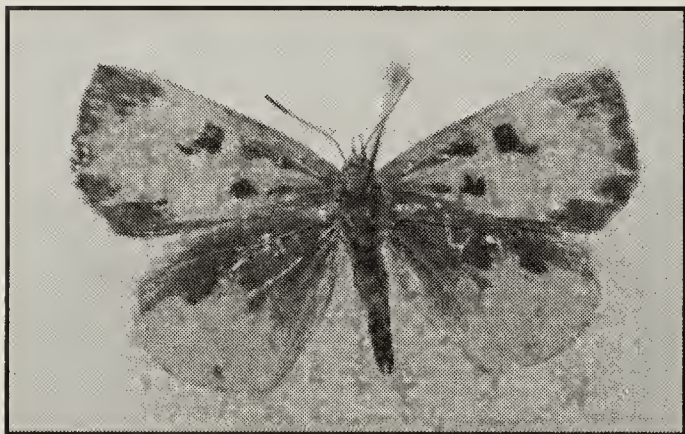


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# NOTES AND LETTERS

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## A NEW BUTTERFLY FOR SASKATCHEWAN



*Harvester butterfly collected on 18 June 2003 in Duck Mountain Provincial Park. Dorsal view (left) and ventral view (right).*  
*Jeanette Pepper*

A butterfly species called the Harvester (*Feniseca tarquinius*) has been previously collected from eastern Canada and United States west to Aweme and Riding Mountain National Park in Manitoba, and eastern North Dakota. It is unique in that it is the only species of butterfly in North America whose caterpillar is known to eat other insects instead of plants. Harvester caterpillars eat wooly aphids, particularly those that occur on alders, and are sometimes attacked and killed by ants that defend their “cows” (i.e. the aphids) from predators. Harvesters hibernate as pupae. The pupa looks like a monkey’s head in shape and markings.

The adults have a wingspread of 28 to 34 mm. The wings are orange on the upperside and broadly edged with black. The underside is dull brown with darker brown, roughly circular patches edged with white. It is reported that they never visit flowers (but some authors disagree with this); instead they feed on aphid honeydew that is secreted on leaves or twigs.

Sometimes it takes detective work to find a new kind of insect. I reasoned that Duck Mountain Provincial Park in Saskatchewan is similar to the Riding Mountain area in Manitoba, so I went there in late May 2002 to look for the Harvester. The day turned cloudy with no butterflies flying, but I did

find a area of Green Alders (*Alnus viridis*) along a bicycle trail.

I searched the same area again on June 7, 2003. Again it turned cloudy and I saw only two butterflies. Progress was made, however, for wooly aphids were found on the Green Alders discovered the previous year.

My wife and I returned to Duck Mountain Park on June 17, 2003 and did a butterfly count. The day was beautiful and warm, with hardly a cloud. Along the same bicycle trail I collected one specimen of the Harvester as it flew rather slowly along. I laughed at such good success. This is a species that my brother Don and I had looked for in eastern Saskatchewan for 50 years.

The specimen I took is in good condition, but it is not fresh. The fact that only one was seen is probably because it was near the end of the expected adult season for the early brood of this species.

I hope to return about two weeks earlier next year—on a sunny day— and get a better idea of how many adult Harvesters are in the area.

- *Ronald R. Hooper*, Box 757, Fort Qu’Appelle, SK S0G 1S0



## COPPER UNDERWING AT THE PAS, MANITOBA

I have routinely collected insects at The Pas since 1947 and have never before collected a Copper Underwing moth (*Amphipyra pyramidoides*). It therefore proved a surprise to find one sitting on a stucco wall by the bus depot in town on the morning of 13 August 2003. The specimen is in the writer's collection. In Winnipeg and other southern areas of the province this moth regularly occurs in autumn, and in some years, in good numbers.

- *Walter Krivda*, P.O. Box 864, The Pas, Manitoba R9A 1K8.

Editor's Note: The Copper Underwing commonly occurs in deciduous woods in south and central Saskatchewan north to Shoal Lake and Red Earth. It comes more readily to sugar bait than to lights. A photograph of the moth can be found in "Check-list of Saskatchewan Moths Part 9: Quakers and Borers" by Ron Hooper, *Blue Jay*, Vol. 49(3), September 1991.

## COMMON CRANE NEAR LEADER, SK

On December 29, 2003, I spotted a large crane-like bird feeding adjacent to some cattle north of Leader, on the north side of the South Saskatchewan River. I thought it might be an injured Sandhill Crane that did not migrate south with its brethren. When I looked through my binoculars I recognized that it was not a Sandhill Crane, but a bird I had never seen before and one that was not in my Peterson's Field Guide.

In Leader, I could not find it in any of the bird identification books in the Saskatchewan Environment office where I work. After a search on the internet, I identified it as a Common Crane, also known as European Crane and Eurasian Crane. I went back to look at the bird and confirm its identity through my spotting scope but when I tried to approach it for a photograph, it flew away.

I notified local bird watcher Daisy Meyers who located it and included it in her Christmas Bird Count. I also notified Al Smith and Brian Johns of the Canadian Wildlife Service in Saskatoon who informed me that the Common Crane is of Asian origin and customarily breeds in Siberia. Since 1957 there have been only 14 confirmed sightings in North America, with nine of those in Nebraska as the birds accompany Sandhill

Cranes on migration to Texas. There has been only one previous report of a Common Crane in Saskatchewan: 5 km west of White Bear on November 10, 1998 by G. Peterson.

This Common Crane was alone, and had spent about two weeks 8 km due north of Leader. We can only speculate how it ended up there.

On January 8, Jason Herzog, who was working in the area, also saw the bird. He did not recognize it but took several digital photographs that, interestingly enough, eventually found their way to Al Smith, who confirmed that it was the same Common Crane (Figure 1 on page 6).

Alas, the story does not have a happy ending. On January 8, 2004, my work partner, Kevin Fitzsimonds, spotted an eagle feeding on something on the ground. Upon close inspection, he discovered the eagle (believed to be an immature Bald Eagle) was feasting on the Common Crane. We retrieved what was left of the crane and will submit it to the Royal Saskatchewan Museum in Regina for their collection.

- *Kerry Wrishko*, Box 70, Leader, SK S0N 1H0. E-mail: wrishko.family@sasktel.net



## WHERE DO DRAGONFLIES GO TO DIE?

I don't normally think of dragonflies, let alone invertebrates, choosing a place or time to expire, something associated with the folklore on elephants or perhaps with our own species, but this summer I observed several dragonflies that seemed to be exhibiting this behaviour.

In central Saskatchewan, while my daughter and I were visiting a small pond intense with dragonfly activity, we observed several adults plunging onto the surface only to be trapped by the surface tension and usually ending stuck upside down. At this first site, on August 24, 2003, we recorded six individuals of five species of *Aeshna*, or Darner, dragonflies performing this: 1 each of *Aeshna constricta* (Lance-tipped Darner), *A. juncea* (Sedge Darner), *A. canadensis* (Canada Darner) and *A. subarctica* (Subarctic Darner), and two *A. eremita* (Shadow Darner). All six were females and all had varying degrees of tattered outer wing margins. One would assume that these individuals had seen their share of aerial battles or mating attempts, and that these were rather "mature" specimens. When we looked on the surface, there were dozens of dragonflies littering the pond in varying states of decay that had broken the surface tension and were floating right-side up. I identified several more of the above mentioned species, but there were also many *Leucorrhinia* spp. (Whiteface) and *Libellula quadrimaculata* (Four-Spotted Skimmer) This pond was approximately 1-3 m across and 10 m long with an edge of sedge and rushes, and with emergent Pondweed (*Potamogeton* spp.) and Yellow Pond Lily (*Nuphar variegatum*).

Two days later, while at Waskesiu Lake, five of us were enjoying one of the final swims of the summer. Around us many *Aeshna eremita* were hawking above the beach and the water, and once again, splashing onto the surface of the lake and getting stuck upside down with the surface

tension. We collected about 16 specimens from the water and the beach, including three by my nearly four-year-old nephew. Three were males and, once again, some had rather tattered wing margins.

Dragonflies almost seem Osprey-like in how they can extract themselves from the surface, somersault in the air and carry on. Mating or battling pairs perform this stunt with both individuals leaving the water either singly or attached together as a copulating pair. However, these observations I made in late August of aged individuals suggest that the dragonflies intended to remain in the water to die. On August 26, I observed two individuals about 15 m off shore, plunge into the water and remain fluttering upside down on the surface for up to 15 minutes. Their fluttering frequency diminished to the point where they eventually cooled down and became almost totally motionless. I revived these sad-looking females who never did take flight again and instead became permanent specimens in my collection instead of replenishing the lake with nutrients. Has anyone seen this "suicidal" behaviour before and drawn the same conclusion?

- Gord Hutchings, 971 Arundel Drive,  
Victoria, BC V9A 2C4 E-mail:  
odonatas@uvic.ca



*Tattered Aeshna subarctica* female, August 24, 2003

*Gord Hutchings*



## WOLVERINE SIGHTING SOUTH OF SASKATOON

At 8:15 AM on Wednesday, November 26, 2003, my wife, Carry, and I were driving east on the summer road that runs along the north boundary of the 96 quarter sections of land which comprises the Dundurn Military Base and Community Pasture south of Saskatoon. We were nearing the railroad tracks when we noticed a dark brown animal briefly stop in the middle of the road and then lope south at an accelerated rate, only to disappear in the tall grass. I got out of the van and walked to the fence hoping to follow the animal in order to look at the tracks, but I was stopped by a NO TRESPASSING sign. We did not see the animal again. Carry and I simultaneously asked, "What was that?"

Over the years, we have seen many badgers, white tailed deer, coyotes, racoons, foxes, stray dogs, an escaped wild boar, a turkey vulture, several elk and one emaciated cow moose. I checked several books available about mammals, and the animal which we saw that morning fits the description of a wolverine. It had a brown/black coat and the tail was clearly visible. I remember thinking that it ran far back on its 'fetlocks' just as, unfortunately, some of my Arabian horses did. The hind end appeared a bit taller than the front end. It had a very distinct lope,

which accelerated from a canter to a gallop.

While it is possible to confuse the sighting of a wolverine with a badger, I'm absolutely certain that this was not a badger. Having grown up on a farm in rural Saskatchewan, I have seen countless badgers, and in the summer of 2003 watched a family of five badgers (one adult and four young) living in the ditch on Highway #219, between Grasswood Road and Baker Road. When a badger runs, it appears to run rather wide-legged. The animal that we saw ran at a lope.

It's a rare occasion when we don't see wildlife when driving on the summer road, especially at sunrise or sunset. What we saw at 8:15 AM on November 26, 2003, however, was totally unexpected!

- Wayne Dueck, Box 9, RR #5, Site 506, Saskatoon, SK S7K 3J8

Editor's note: There have been two previous reports in *Blue Jay* of wolverine sightings well south of their expected range. One was shot and killed at a farm about 50 miles west of Beechy on 17 May 1963 (Vol. 21 page 119). The other was seen about 20 miles north of Moose Mountain Provincial Park in July 1972 (Vol. 30, page 261).

## ASASKATCHEWAN GATHERING OF SWAINSON'S HAWKS IN FALL 2002

On September 21, 2002 around 1600h, while travelling through the Dirt Hills on Highway 334 approximately 9 km northeast of Kayville (55 km west of Weyburn), my wife, Megan, and I noticed a few Swainson's Hawks circling over the stubble fields west of the highway. Four or five more were sitting in the field below. Remembering a previous experience on September 23, 1986 when I observed a flock of 86 Swainson's Hawks 16 km north of Kyle, SK, I decided to investigate further. Over the next

kilometer, at least 40 hawks were counted in the fields or circling, most of them west of the highway but a few to the east as well. They appeared to be grounded by unsettled weather: cloudy skies and cool temperatures (+5°C) with wind gusts of 30-40 km/hr driving short bursts of horizontal rain.



A ridge parallels the road about 500 m west of the highway where most of the hawks were so we turned into the stubble field and drove westward to the top of the ridge. We flushed 30 or 40 more hawks en route, and then travelled north for about a kilometre beside the highway, scanning in all directions. There were Swainson's Hawks everywhere!

We headed south once again on the highway to get a thorough count since most of the birds seemed visible, either in the air or perched in the farmyards along the road where many had settled into trees. It was a remarkable sight to see 12-15 perched in a single dead aspen tree! Through this 1.5+ km stretch we conservatively estimated that there were 200 Swainson's Hawks in this gathering. The variety of different plumages was astounding, with only about 10% having the typical adult plumage one is accustomed to seeing in summer. A small proportion (<10%) were dark phase birds.

## RETURN OF THE FROG

Over the past decade when I have gone out on field trips in sedgy moist woodland in the vicinity of The Pas, I have not seen a single frog or toad. Toads were abundant in the 1950s under the incandescent lights at street corners in town. Many would fall through the steel grating into the water in the sewers and drown.

It therefore proved to be gratifying

Similar concentrations of this species have been occasionally reported from the south of the province. These include 100-200 in the Regina area on 16 September 1960,<sup>2</sup> 300 about 27 km south of Elrose on 14 September 1981, 700 near Tullis on 16 September 1959,<sup>4</sup> 200-400 in the Mantario area in late August 1987,<sup>3</sup> 400 near Weyburn on 28 September 1986 (Guy Waple pers. comm.), and 1918 near Weyburn on 28 September 2001<sup>1</sup>.

1. BAILEY, M. 2001. Swainson's Hawks over the Souris Valley. *Blue Jay* 59: 207-208.

2. CARSON, R. D. 1960. A migratory Congregation of Swainson's Hawks. *Blue Jay* 18: 158

3. MCGRATH, B. E. 1988. Saskatchewan Flock of Swainson's Hawks. *Blue Jay* 46: 90

4. ROY, J. F. 1996. The Birds of the Elbow. Special Publication Number 21. Nature Saskatchewan.

- *Robert Waple*, 740 4<sup>th</sup> Street East, Saskatoon, SK, S7H 1K2

recently to hear from people living along the Rall's Island Road abutting on Grace Lake. They observed that 'baby frogs' have been so abundant for three years now that people stopped cutting their lawns for a few weeks as the frogs moved inland from the lake.

- *Walter Krivda*, P.O. Box 864, The Pas, Manitoba R9A 1K8



*Wood Frog*

*Wayne Lynch*



## UNUSUALSKUNKMORTALITY

At approximately 1000h on 27 September 2003, I discovered an adult male Striped Skunk that had been killed by an automobile, probably in the hours just prior to dawn, on U.S. Highway 89, 4 km west of Vaughn, Montana. The skunk's head was securely confined within an empty plastic jelly jar (Figure 1). Presumably the skunk had inserted its head into the 32 ounce jar while trying to feed upon faint remnants of the jar's original contents. Upon dissection, the entire gastrointestinal tract was found to be empty although the animal was in good nutritional condition.

Condensation within the jar, and wear and tear on the outside, suggested that the skunk had been trapped for anywhere from one or two to 24 hours. The tightness of the fit was such that the skunk could be suspended from the jar with minimal slippage and indicated that the skunk probably would have never released itself from its plastic predicament. The skunk's demise on the highway, a presumably swift event, was perhaps fortunate.

The author has previously commented on unusual human-related mortality of wildlife.<sup>1,2</sup> The rather bizarre incident reported here not only highlights yet another human-related environmental disturbance, specifically, litter or improper garbage storage and disposal, but also reaffirms the potential impact of automobile-related deaths, for which more quantification is warranted.

### Acknowledgements

The author wishes to thank Mark Tischendorf and Pat Gero, who assisted with evaluation and photographic documentation of this skunk.



**Figure 1. Skunk with head trapped in a 32 oz plastic jelly jar (knife for scale is 16.5 cm long)**  
**Jay Tischendorf**

1. JAY TISCHENDORF, JOHN-EDD BROWN, KELLY HEPWORTH, and EDWIN WILAND. 1995. Raptor electrocutions on the Pawnee National Grasslands. *C. F. O. Journal, Colorado Field Ornithologists' Quarterly*, 29(1):11-12.

2. JAY W. TISCHENDORF and CHARLES L. JOHNSON. 1997. Long-eared owl snagged on barbed wire fence. *Blue Jay* 55(3):200.

- Jay W. Tischendorf, American Ecological Research Institute (AERIE), P. O. Box 1826, Great Falls, Montana 59403





## FISHING IN FEBRUARY?



*Where's the water?*



*The water is white and the fish feathered.*





*Touchdown...*



*...and success!*

*Great Grey Owl banding by Marten Stoffel in northern Saskatchewan, February 21, 2004. Photographs by Carol Blenkin*



## A LABRADOR DUCK

*'Not seen since 1875. Presumed to be extinct.'*  
— handwritten label in the Redpath Museum, Montreal

Presumed, indeed! It's time you changed the label—  
year upon year, I watch it fading and withering,  
a peculiar relic in your eyes  
just as I am, posing in a glass box beside  
a brace of passenger pigeons, each of us  
a curiosity, a brief distraction  
as you trudge from dinosaur to mummy.  
Sixty of my kind, I hear, were spared  
the usual fate of the dead. But I imagine  
their feathers too are starting to disintegrate,  
the cells in their bills dissolving despite  
all your efforts to render us immortal.  
It doesn't work; it never works; one happy day  
I expect to crumble. As for my previous life  
there are many things I'm glad to say  
you'll never know—our habits of courtship,  
our flyways and byways, why we had so little  
chance against you—and I'm not telling.

Stop. Look me over, and please let me  
indulge my only pleasure: looking back at you.  
Now that feeding, flying, mating and diving  
are impossible, the chance to ponder you  
is all I've got. Call me an anthropologist,  
alert to the coded meanings in your plumage,  
the significance of tiny frowns. In yarmulkes  
and bobby socks, Bermudas and chadors,  
Paisley shirts and dresses that glide across the floor,  
you come and go, dying slowly on the stairs.

So here I stand: preserved and catalogued and webbed,  
a trophy of your deadly skill, while you—



still free to taste the wind and weather,  
peering in at me as though I had the answer  
to some query on the tip of your tongue—  
recede into the growing past.

- Mark Abley, 2001. *Dissolving Bedrock*. OVER THE MOON,  
Outremont, QC

#### ONE MORE MAY SURPRISE

Outside our window in full sunlight  
the greening grass gleams while  
we sit watching warblers foraging  
amidst catkins and fattening buds  
delighted to see brilliant close-ups  
of Magnolia, Cape May and Yellow-rumps  
when suddenly there appeared before us  
a startling flash of black, white and orange  
a new warbler dangling upside down  
on the end of a spruce bough...  
“I know it,” I said, “wait, darn...  
the bird book, flipping, yes: Blackburnian!”  
“Fiery-orange throat” exactly!  
Marveling as it peered and fluttered  
gleaning minute prey amongst the needles  
an astonishing view for us both  
of Mrs. Blackburn’s bird, we learned,  
Audubon’s English lady friend—  
another shared moment in  
our lifetime of memories.  
- Bob Nero

#### APRIL TWILIGHT

An old farm trail  
worn deep into the greening sod  
divides  
last fall’s trim stubble field  
from wild abandoned pasture



A grayish-brown ruffed grouse  
cock of the spring woods  
patrols the severed stalks  
with bobbing head  
a solitary reaper out of place  
in alien grain

Half in darkness now  
he steps with mincing care  
back to the road  
each foot precisely set before the other  
then  
explodes in pelting flight  
into the screen of budding trees  
plumps down amid the brush and prickly briar  
safe

- Victor C. Friesen

#### MANNERS

Flurries of homely brown sparrows  
drop from a tree  
for frenzied ground-feeding  
surrounding a  
finch  
brown too  
but tinted with purple and wine  
The sparrows wheel round  
the center finch  
in a mechanic dance  
tilting-pecking-seeking-hopping  
until startled  
then swirl in one fluidity of wings  
into the sheltering tree

Plain sparrows are alert survivors  
who eat and run (or fly)  
the tinted bird's a temporizer  
resuming hardly interrupted eating

- Victor C. Friesen



## FACE-OFF

All that happened, really, was that  
two birds of different species,  
a Purple Finch and a White-breasted Nuthatch,  
had a momentary confrontation at our oak tree feeder  
the finch standing upright on the platform  
looking up at the nuthatch which hung downwards  
as their kind often do, but then, suddenly  
the nuthatch spread its wings, fanned out its tail  
and slowly swivelled its whole body from side to side  
just as some petulant mistress might moodily flourish  
her fan in the face of an annoying suitor.  
Three times the nuthatch closed and then again  
flared out its wings and tail as the finch  
stood stalwartly over the sunflower seeds  
a spectral performance of implied aggression  
a curious and beautiful display.

- Bob Nero

## FOOTPRINTS

My feverish mind, all awry over  
our oh so sick dog in his pain, and  
weary of worldwide calamities,  
suddenly gains reassuring relief  
and even a pleasurable small thrill  
in finding tiny precise footprints  
in the thin layer of new snow on the stoop  
where a house sparrow hopped

- Bob Nero





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# IN MEMORIAM

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## DOUG GILROY, 1915-2003

LORNE SCOTT, Box 995, Indian Head, SK, S0G 2K0

On October 19, 2003, Saskatchewan lost one of its best-known naturalists. Through his *Prairie Wildlife* column, which spanned five decades in the *Western Producer*, Doug Gilroy was a household name in farm homes across western Canada.

Doug was born on October 20, 1915 and raised on a farm along Boggy Creek, a few miles northwest of Regina. Like many youngsters raised on a farm, Doug developed an interest and appreciation of the natural world at an early age. He was also quick to realize that insects, plants and aquatic life were as much a part of the natural world as the colorful robin and stately White-tailed Deer.

In the late 1940s, Doug attended his first color slide presentation on wildlife. It was given by naturalist Dan McCowan in Regina and so impressed Doug that he decided to pursue nature photography. After purchasing his first camera with colour capability for \$5, Doug was soon on the lecture circuit, showing his slides and talking about wildlife and conservation. Over the years, he visited hundreds of school classes with his slide programs. Dozens of classes also came to the Gilroy farm, where he and his wife Mary hosted the energetic, eager children.



A longtime supporter of the Saskatchewan Natural History Society, Doug served as president in 1951-52. In 1954, the Society presented him with the Conservation Award for his exceptional ability as a nature photographer, columnist and lecturer. In 1990, Doug received the Gordon Lund Conservation Award from the Saskatchewan Wildlife Federation for his untiring efforts in writing the *Prairie Wildlife* column in *The Western Producer* for over 36 years.

In his introduction to Doug's final book titled *Prairie Wildlife: The Best of Doug Gilroy's Nature Photography*, R.H. (Rusty)



Macdonald, Executive Editor of the Western Producer reminisces about his early contact with Doug.

“This writer became involved with Gilroy in what can fairly be called the major turning point in Gilroy’s career. In the early 1950s we set out to “western Canadianize” the contents of the Western Producer, replacing features and regular columns by eastern Canadian, American, and British writers with those written by westerners.

“I approached the late Clifford Shaw of Yorkton, a master photographer and writer, but he was too busy and recommended Gilroy. ‘He’s a farmer down by Boggy Creek who rides a tractor with a camera around his neck. He’s got a good collection of photos, too.’

“Gilroy was interested but doubted if he could produce each week. I said it was just like writing home: ‘Sit down, and write a family letter, cut off the personal paragraphs top and bottom, and send the middle to the Producer.’ If he kept it homey and chatty, (he wasn’t the kind to get fancy) readers would respond with letters and his answers would add interest and ease the writing chore. ‘If you do it that way, you’ll be writing it when you’re sixty.’”

According to Macdonald, Doug also published articles in *Family Herald*, *Country Guide*, *Nature Canada*, *B.C. Living*, *Alberta Living*, and *Time* as well as *Blue Jay*, in which 28 of his articles and 17 photographs appeared. His four books are *Prairie Birds* (1967); *Prairie Birds in Color* (1976); *Parkland Portraits* (1979); and *Prairie Wildlife: The Best of Doug Gilroy’s Nature Photography* (1985).

Doug’s final column, number 1594, appeared in the Western Producer on December 14, 2000. It is difficult to measure the impact Doug’s column had in promoting an interest and awareness of our natural world. Undoubtedly, hundreds if not thousands of people across Western Canada either

communicated directly with Doug or can relate to something read in Doug’s column over the years. In my own case, it was through one of Doug’s Prairie Wildlife columns in 1965 that I contacted Alfred Serfas at Snowden, SK who was, like me, setting out bluebird nest boxes. Through Alfred, I discovered the Saskatchewan Natural History Society. In early 1966, Stuart Houston used Doug’s column to request people to report Great Horned Owl nests to him so that he could band the young. As a teenager, I skeptically wrote to him that I had located three owl nests. Much to the surprise of my whole family, Stuart showed up from 200 miles away on the May long weekend to band the owls. Three years later, Stuart and Doug provided references for me to obtain my own bird banding permit.

In his final column Doug said,

“I’ve finished a cycle. The column began with the January 7th issue of The Western Producer in 1954 and I am finishing it at the end of 2000. Forty-six years is a long time and everything must come to an end sometime. It was a ritual for me to write my column longhand, and have my wife, Mary, type it. I never learned to type, even in the two fingered manner, but Mary has always enjoyed doing it for me.

“One of the things I greatly enjoyed about doing the column was the letters I received. It was always a treat to get wonderful, interesting letters from down-to-earth prairie people who enjoy the outdoors and nature. I would like to extend my thanks to all those who wrote and contributed of their experiences with the outdoors and who let me know how much they valued the column.”

Doug, with his wife, Mary, and son Greg, farmed on the Boggy Creek farm for many years. Doug and Mary retired from the farm in 1973 and resided at Regina Beach, where they pursued their life-long interests for many years. Mary passed away on June 12, 2003 and Doug died peacefully at home on October 19, 2003, one day before his 88th birthday.

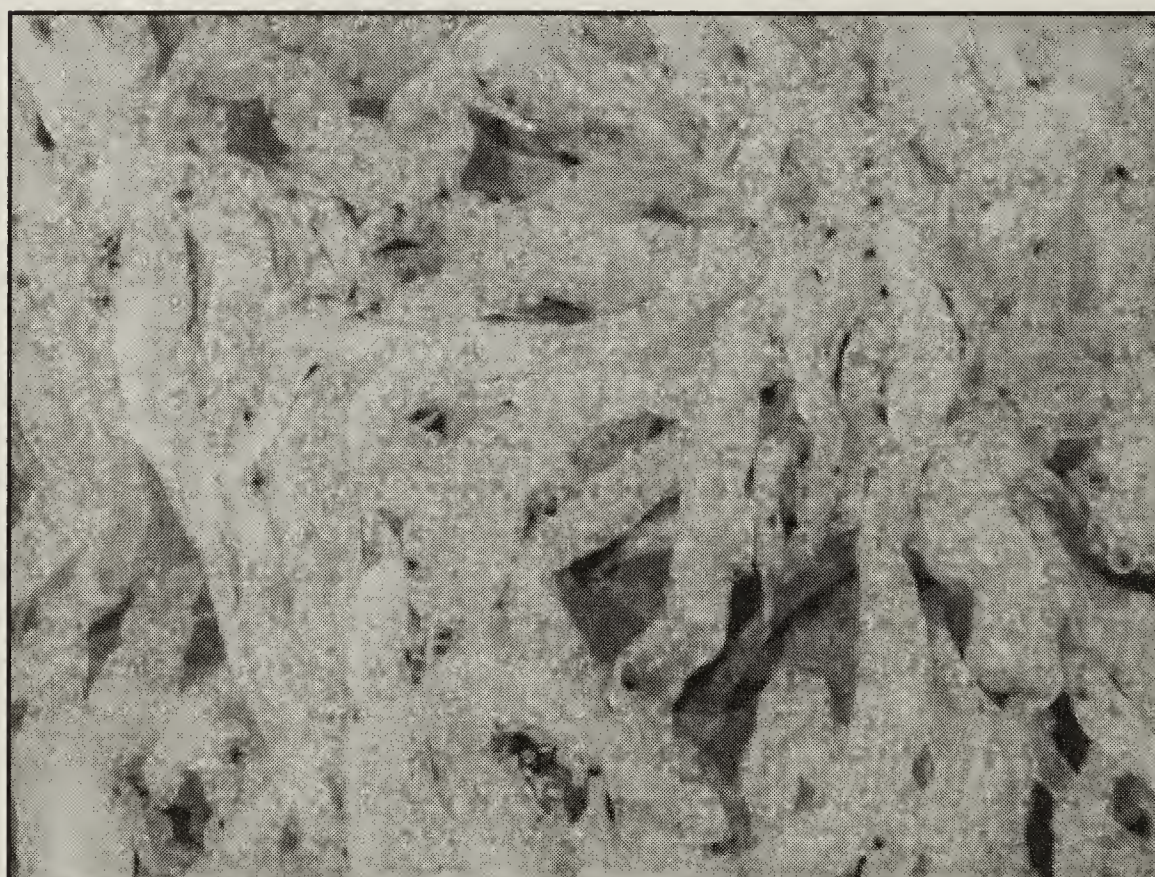
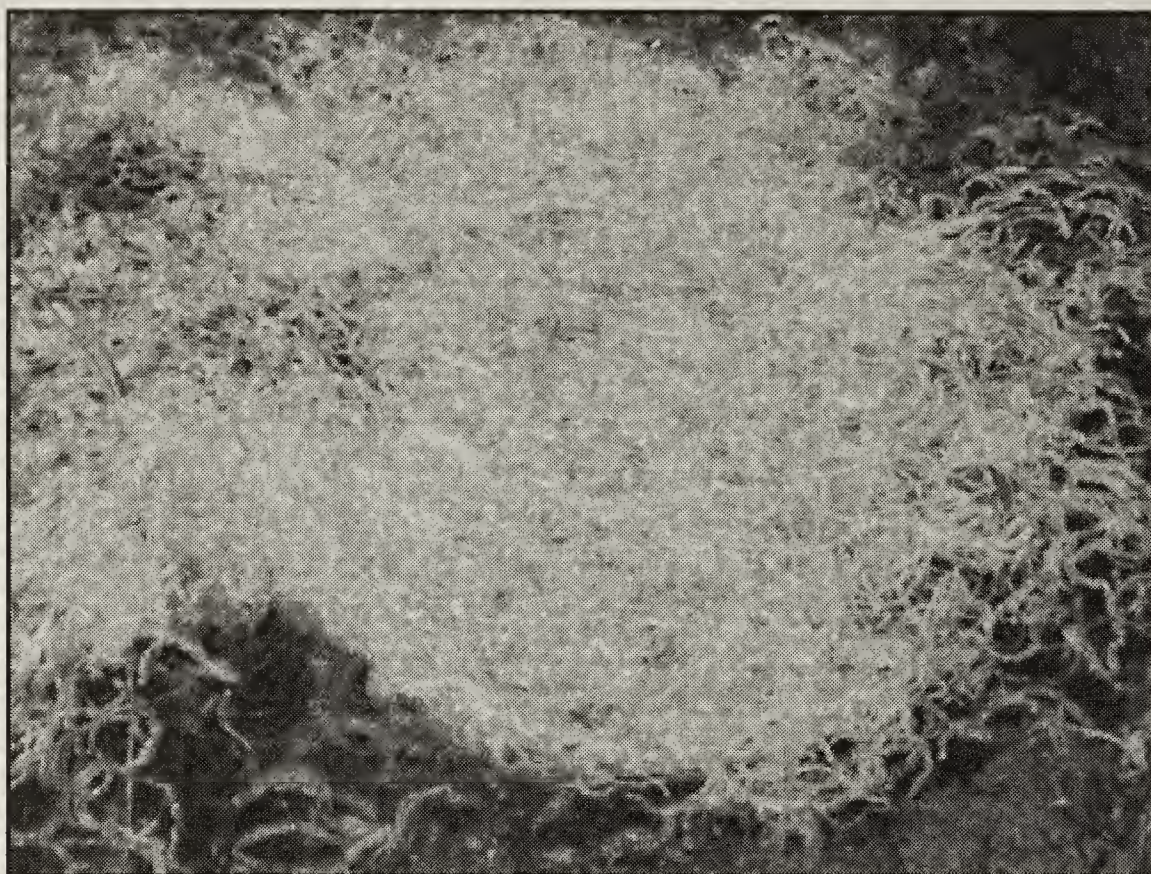


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# MYSTERY PHOTO

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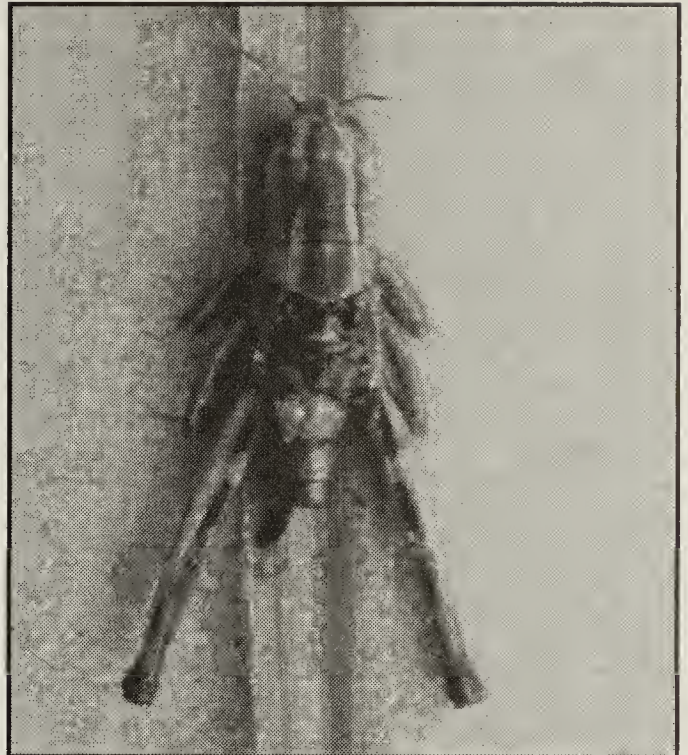
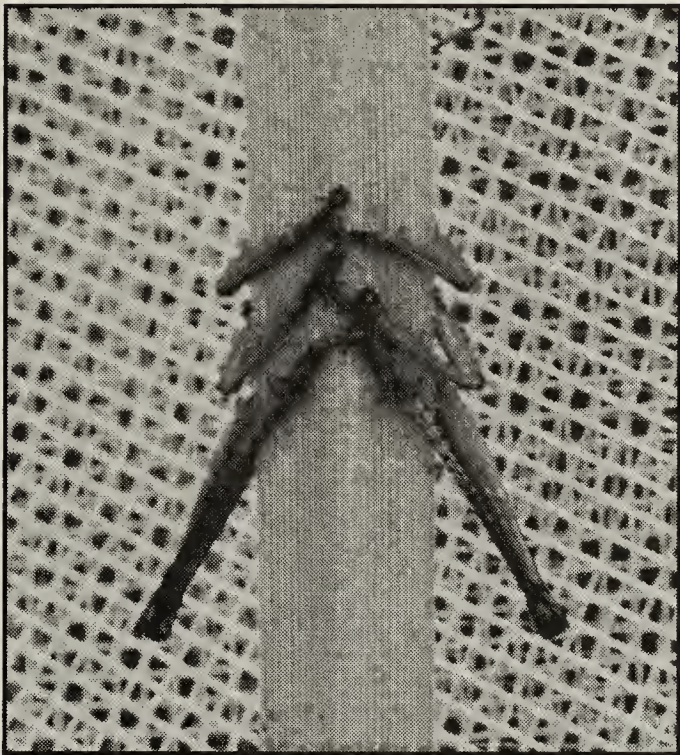
## MARCH 2004 MYSTERY PHOTO



What are these translucent strands floating on the surface of a prairie slough 12 km east of Liebenthal in southwestern Saskatchewan? The large ant at the bottom of the close-up image will give you an idea of the scale. The photographs were taken on June 12, 2003 by Michelle Lanoie.



## ANSWER TO DECEMBER 2003 MYSTERY PHOTO



The December mystery photo shows the legs of a dead two-striped grasshopper tightly gripping a grass blade. If you turn the blade over (right photo) you can see the remains of this insect. One of our Nova Scotia readers, Jean Timpa, correctly identified the mystery object as a grasshopper, but no one offered an explanation for the characteristic pose of the insect on the grass blade. This has been a common sight on the prairies over the past few summers, and may be so again this year. The editors would like to thank Dan Johnson for the following explanation.

This two-striped grasshopper has been killed by the fungus *Entomophaga grylli*. The last act of a grasshopper with this disease is to climb high and then hold on in the death grip visible in the left photograph. The fungus fills the grasshopper with spores that are released from the disintegrating body of the dead insect. If you opened up this grasshopper, wet it and made a smear on a microscope slide, you might see thousands of perfectly round resting spores, or the less well-shaped protoplast precursors. The genus name, *Entomophaga*, is Greek for insect-eating, and *grylli* refers to grasshoppers and their relatives.

This fungus infects a small percentage of grasshoppers on the grassland every year.

Lately it has been low in incidence, and not much help in slowing the grasshopper outbreak, but it has done better in the past. In 1962, one of the largest grasshopper outbreaks in recent history was brought crashing down by this fungus; the millions of infected clear-winged grasshoppers shed so many spores that the ground surface in some places had a pale patina.

There are two main types of this fungus on the Prairies. One (like this one) kills mainly the two-striped, but I have seen it kill close relatives such as the little spur-throated grasshopper, the lesser migratory grasshopper and Packard's grasshopper. Many other species of grasshoppers are apparently immune. The other pathotype infects the clear-winged grasshopper, as well as some of the related band-winged grasshoppers such as the Carolina grasshopper, and even a slant-faced grasshopper, the marsh meadow grasshopper. This version of the fungus produces a conidiophore on the abdomen of the insects, and getting the fungus to sporulate in a humid container makes a nice science project.

- Dan Johnson, Professor of Environmental Science, University of Lethbridge, Lethbridge, AB T1K 3M4  
E-mail: dan.johnson@uleth.ca



## PASTURE MAGIC

Magic playground of my childhood,  
a pasture filled with wonders—  
Three-flowered Avens,  
always three, never two or four,  
counted out correctly like candies.  
Did a gene in the coarse black rootstock  
decide three was the perfect number  
for this member of the Rose family,  
programming it to produce a trinity?

A pinkish stem stretches above the basal rosette  
of dark-green, deeply-cut leaves.  
A small tuft of finely-toothed leaflets  
circles the long stem as it divides into three  
ending in pointed roselike buds.  
But the buds stay closed  
assuming eternal youth—  
five scarlet sepals hide  
five smaller yellow petals—  
until surprised by old age,  
the ripe seedhead bursts  
into pinkish feathery plumes.

Seeing its reddish-purple glow  
in early spring,  
the pioneers called it “Torch Flower”;  
later when it waved fine delicate hairs,  
“Old Man’s Whiskers” and “Prairie Smoke.”

My one surviving scrawny transplant  
yields three nodding rosy droplets  
that change to tiny puffs of captive smoke,  
bringing back brief glimpses  
of distant prairie magic.

- Jean MacKenzie, 2002. *An Exhilaration of Flowers*.  
Nature Saskatchewan, Regina.



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